



February 27, 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 <u>http://www.shinglecreek.org/minutes--meeting-packets.html</u>

Dear Commissioners:

Regular meetings of the Shingle Creek and West Mississippi Watershed Management Commissions will be held **Thursday, March 12, 2020,** at Edinburgh USA, 8700 Edinbrook Crossing, Brooklyn Park, MN. Lunch will be served at 12:00 noon and the meetings will convene concurrently at 12:45.

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

Please email me at <u>judie@jass.biz</u> to confirm whether you or your Alternate will be attending the regular meeting.

Your meal choices are:

Grilled Chicken Caesar Salad, Garlic Croutons, Shaved Parmesan. Freshly Baked Breads. (All dressing will be served on the side)

_____ Grilled Portobello Mushroom Sandwich. Kettle chips

_____ Grilled Sirloin, Brown Rice, Oyster Mushrooms, Watercress, Miso Vinaigrette. (GF, DF)

_____ I will be attending but DO NOT want a meal.

_ I will not be attending the regular meeting.

We must make final reservations by **5:00 p.m., Thursday, March 5, 2020.** Please make a reservation, even if you are not requesting a meal, so we can arrange for sufficient seating and meeting materials. Thank you.

Regards,

Judie A. Anderson Administrator

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

TAC Members

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

A combined regular meeting of the Shingle Creek and West Mississippi Watershed Management Commissions will be convened on Thursday, March 12, 2020, at 12:45 p.m. at Edinburgh USA, 8700 Edinbrook Crossing, Brooklyn Park, MN. Agenda items are available at http://www.shinglecreek.org/minutes--meeting-packets.html.

Prior to the beginning of the regular meeting we will learn from Dr. Richard Kiesling from the USGS. He will speak to us about *Advanced BMPS for Emerging Contaminants*.

		1.	Call to Order.
	SCWM		a. Roll Call.
٧	SCWM		b. Approve Agenda.*
٧	SCWM		c. Approve Minutes of Last Meeting.*
		2.	Reports.
٧	SC		a. Treasurer's Report.*
٧	SC		b. Approve Claims* - voice vote.
٧	WM		c. Treasurer's Report.*
٧	WM		d. Approve Claims* - voice vote.
	SCWM	3.	Open forum.
		4.	Project Reviews.
٧	SC		a. SC 2020-001 Crystal Airport Reconstruction Project, Crystal.
٧	WM		b. WM 2020-002 CBPAMES Building Additions and Renovations, Champlin.
٧	WM		c. WM 2020-003 Kurita, Brooklyn Park.
		5.	Watershed Management Plan.
	SCWM		a. 2019 Highlights Presentation for Cities.*
	SCWM	6.	Water Quality.
			a. February 13, 2020 TAC Meeting Minutes* - information only.
	SCWM	7.	Education and Public Outreach.
	SCWM		a. Education and Outreach – update.**
			b. Next WMWA meeting – 8:30 a.m., Tuesday, April 14, 2020, Plymouth City Hall.
		8.	Grant and Project Updates.
٧	SC		a. New Hope Cost Share Reimbursement Request.**
	SCWM		b. Grant Updates - verbal.
	SCWM		c. Project Updates - verbal.
		9.	Communications.
	SCWM		a. Communications Log.*
			b. Link to Marta Roser on CCX news about carp removal:
			https://ccxmedia.org/news/robbinsdale-kicks-off-carp-removal-project/
	SCWM	10.	Other Business.
	SCWM	11.	Adjournment.

Z:\Shingle Creek\Meetings\Meetings 2020\03 Agenda Regular meeting.docx * In meeting packet or emailed ** Available at meeting ***Previously transmitted **** Available on website v I tem requires action



MINUTES Regular Meeting February 12, 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 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, February 12, 2020, at Edinburgh USA, 8700 Edinbrook Crossing, Brooklyn Park, MN.

Present for Shingle Creek were: David Vlasin, Brooklyn Center; Adam Quinn, Brooklyn Park; Burton Orred, Jr., Crystal; Karen Jaeger, Maple Grove; Bill Wills, New Hope; Harold E. Johnson, Osseo; Andy Polzin, Plymouth; Ed Matthiesen and Diane Spector, Wenck Associates, Inc.; Troy Gilchrist, Kennedy & Graven; and Judie Anderson, JASS.

Not represented: Minneapolis and Robbinsdale.

Present for West Mississippi were: David Vlasin, Brooklyn Center; Alex Prasch, 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, JASS.

Also present were: Andrew Hogg, Brooklyn Center; Mitch Robinson, Brooklyn Park; Todd Tuominen, Champlin; Derek Asche, Maple Grove; Liz Stout and Shahram Missaghi, Minneapolis; Bob Grant and Megan Hedstrom, New Hope; John Roach, Osseo; Leah Gifford, Ben Scharenbroich and Amy Riegel, Plymouth; Richard McCoy and Marta Roser, Robbinsdale; Laura Scholl and Jennifer Ehlert, Metro Blooms for item IV.C.; ReNae Bowman, Crystal; and James Kelly, Osseo.

II. Agendas and Minutes.

Motion by Orred, second by Wills to approve the revised **Shingle Creek agenda.*** *Motion carried unanimously.*

Motion by Butcher, second by Johnson to approve the revised **West Mississippi agenda.*** *Motion carried unanimously.*

Motion by Orred, second by Wills to approve the **minutes of the January regular meeting.*** *Motion carried unanimously.*

Motion by Johnson, second by Vlasin to approve the **minutes of the January regular meeting.*** *Motion carried unanimously.*

III. Finances and Reports.

A. Motion by Jaeger, second by Wills to approve the Shingle Creek **February Treasurer's Report.*** *Motion carried unanimously.*



Motion by Jaeger, second by Johnson to approve the **Shingle Creek February claims.*** Claims totaling \$28,961.47 were *approved by roll call vote:* ayes –Vlasin, Quinn, Orred, Jaeger, Wills, Johnson, and Polzin; nays – none; absent – Minneapolis and Robbinsdale.

B. Motion by Johnson, second by Jaeger to approve the **West Mississippi February Treasurer's Report.*** *Motion carried unanimously*.

Motion by Johnson, second by Butcher to approve the **West Mississippi February claims.*** Claims totaling \$13,239.30 were *approved by roll call vote:* ayes – Vlasin, Prasch, Butcher, Jaeger, and Johnson; nays – none.

IV. Open Forum.

A. ReNae Bowman, Master Water Steward Appointee, presented her Capstone Project.* As an appointee, Bowman is required to take classes and plan and successfully execute a Capstone Project. This program was developed by the Freshwater Society for the MPCA. Her project includes evaluating and revitalizing Crystal's current 125 raingardens and offering alternative runoff abatement methods to those without raingardens. She may be reached at <u>renaebowman37@gmail.com</u> to learn more about the Master Water Steward program and her project. It was suggested that the Master Water Steward program be considered as a Commission budget line item for 2021.

B. James Kelly. After reading the Commission's Work Plan and the draft NPDES Report, Kelly expressed a desire to see the Commission's education program expanded so that Osseo students can participate and contribute. He suggested more hands-on and relevant activities for the students. Spector described the Commissions' participation in the West Metro Water Alliance (WMWA) and the Watershed PREP program. She explained that the program is conducted by certified educators within Minnesota State Education Standards.

C. In January the City of Brooklyn Park submitted a Partnership Cost Share Program application on behalf of Boisclair Corporation and Metro Blooms for improvements at **Brooks Landing Senior Apartments.** The request was for \$50,000. Improvements include replacing the parking lot, adding two raingardens to treat runoff from the parking lot and sidewalk, and adding amenities such as benches and landscaping. The Technical Advisory Committee (TAC) recommended to the Commission that the project be funded at \$20,000. The Shingle Creek Commission approved funding at that amount at their January 9, 2020 meeting.

Metro Blooms staff returned to the TAC with a revised proposal.* After revisiting stormwater modeling and site design they are able to capture 3.9 pounds of TP annually and have requested an additional \$10,000 from the January 9th TAC recommendation for a total of \$30,000. This site was awarded a Lawns to Legumes demonstration site and funding from that grant will also be applied to the raingarden. At their meeting prior to this meeting the TAC recommended that the Commission provide \$10,000 of additional funding for this project.

Motion by Orred, second by Willis to approve this recommendation. *Motion carried unanimously*.

V. Election of Officers.

A. Hearing no further nominations, motion by Quinn, second by Wills to elect the following officers for the year 2020 for the Shingle Creek Commission:

1. Chair - Andy Polzin, Plymouth



- **2.** Vice Chair Wayne Sicora, Robbinsdale
- **3.** Secretary Karen Jaeger, Maple Grove
- **4.** Treasurer Harold Johnson, Osseo

Motion carried unanimously.

B. Hearing no further nominations, motion by Prasch, second by Butcher to elect the following officers for the year 2020 for the West Mississippi Commission:

- 1. Chair Gerry Butcher, Champlin
- 2. Vice Chair David Vlasin, Brooklyn Center
- **3.** Secretary/Treasurer Karen Jaeger, Maple Grove

Motion carried unanimously.

VI. Project Review.

WM2020-001 River Park Improvement Project, Brooklyn Park.* Renovation of park facilities and creation of a stormwater treatment pond on 10.07 acres located at 81st Avenue North. Following development, the site will be 56 percent impervious with 5.68 acres of impervious surface, an increase of 0.83 acres. The complete project application was received on January 31, 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 to an existing stormwater pond on the north side of the park, a newly constructed stormwater pond on the southeast portion of the park, and a rain garden in the center of the south parking lot. Runoff from new trail construction in the southern portion of the park will be treated by a downgradient vegetated buffer. The applicant meets Commission water quality treatment requirements.

Commission rules require that site runoff is limited to predevelopment rates for the 2-, 10-, and 100-year storm events. Runoff from the site is routed to stormwater ponds, vegetated trail buffer, and a rain garden. 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 0.83 acres, requiring infiltration of 0.07 acre-feet (3049 CF) within 48 hours. The applicant proposes that new trail in the north part of the park will be treated by the adjacent existing stormwater wetland, and that new trail through the center of the park will be treated by over 40 feet of down-gradient buffer. The remaining runoff will be treated by a biofiltration basin in the south parking lot that has the capacity to infiltrate the rest of the required volume within 48 hours. The applicant meets Commission volume control requirements.

The erosion control plan includes two rock construction entrances, perimeter silt fence, sediment control log on sloped areas, silt fence along stormwater ponds, rip rap at inlets, and native seed specified on the pond and rain garden slopes. The applicant should include silt fence surrounding the newly constructed biofiltration basin in the south parking lot. Silt fence should be extended along the newly constructed stormwater pond at the south end of the park to completely surround the basin. Enclosing the



new stormwater pond and raingarden will prevent sedimentation and compaction during vegetation establishment. The applicant should also move the rock construction entrance in the south parking lot of the park further west along 81st Avenue North to the intersection with Mississippi Lane. Doing so will ensure that sediment from the bituminous removal along 81st Avenue is properly controlled. The erosion control plan meets Commission requirements.

A Level 2 wetland delineation identified three wetlands on site that will be impacted by the project. The Commission is the LGU for WCA administration in Brooklyn Park and has approved impacts to the wetlands. Wetland permitting is being handled separately from this application.

There are Public Waters adjacent to this site. The Mississippi River is a DNR Public Water bordering the east side of the park. It is impaired for total suspended solids and bacteria. The proposed project is not anticipated to negatively impact the river or its Aquatic Consumption/Aquatic Recreation status. The applicant meets Commission Public Waters requirements.

The park is within the FEMA 100-yr floodplain. The floodplain elevation is 821.4 ft. The new park structure on the south site of the park has a low-floor elevation of 822 ft, which is not at least two feet higher than the FEMA 100-yr floodplain; however, the city of Brooklyn Park has a floodplain ordinance (152.514) that permits this new construction because it is non-habitable and accessory to park uses. The project will result in a net increase in floodplain storage, mostly due to the construction of the stormwater treatment pond. Flood storage will increase by 1,712 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.

Several public meetings have been conducted for the project, beginning in 2017 and most recently on January 29, 2020. The applicant meets Commission public notice requirements.

An Operations & Maintenance (O&M) plan is not needed for this project because the park is owned and operated by the City of Brooklyn Park.

Motion by Jaeger, second by Prasch to advise the City of Brooklyn Park that approval of Project WM2020-001 is granted with two conditions:

1. Install silt fencing around the newly constructed raingarden. Extend silt fencing to completely surround newly constructed stormwater treatment pond.

2. Move southern rock construction entrance to the egress point.

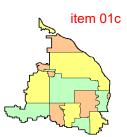
Motion carried unanimously.

VII. Watershed Management Plan.

A recurring question is how to **fund the cost of maintenance** associated with the projects the Commissions undertake. At the Technical Advisory Committee (TAC) meeting prior to this meeting the members agreed to ask the Commissions to direct the TAC to consider this matter.

Motion by Jaeger, second by Vlasin directing the TAC to research this subject. *Motion carried unanimously.*

Motion by Butcher, second by Jaeger directing the TAC to research this subject. *Motion carried unanimously.*



Gilchrist will contact the County Attorney to get a firm response as to whether the Commissions can levy for maintenance costs.

VIII. Water Quality.

A. Shingle Creek. Each year the Shingle Creek Commission budgets and undertakes monitoring activities, including routine stream and lake monitoring and volunteer lake, stream, and wetland monitoring. Water quality and quantity monitoring on Shingle Creek and select lakes is performed by Wenck staff and the USGS and macroinvertebrate monitoring in Shingle Creek is performed by volunteers through the Hennepin County Environmental and Energy (HCEE) RiverWatch program. Lake monitoring is also performed by volunteers through Met Council's Citizen Assisted Lake Monitoring Program (CAMP). Wetland monitoring is conducted through HCEE's Wetland Health Evaluation Program (WHEP).

Staff's February 6, 2020 memo* presents the proposed 2020 monitoring program. This proposal is consistent with the program set forth in the Third Generation Watershed Management Plan, which includes routine monitoring tasks, specific monitoring efforts to support Commission administered grants, and monitoring to evaluate progress toward the TMDLs every five years. This year the Commission will complete the 5-year biotic and DO TMDL review report for Shingle and Bass Creeks.

The proposed 2020 monitoring program includes routine streamflow and water quality monitoring (\$35,000); routine lake monitoring including intensive water quality monitoring and aquatic vegetation surveys (\$24,000); and monitoring to support grant projects (\$66,700, funded by various grants). The remaining \$1,800 in the budget will be used to fund planning meetings and cover other tasks related to field season preparation.

Staff's memo also describes the monitoring support for Bass and Pomerleau water quality monitoring, Curly Leaf Pondweed (CLP) delineation, and sediment coring; Crystal Lake water quality, SAV, sediment cores, and carp aging study; Twin Lake CLP delineation and carp aging study; and Ryan Creek carp removal. Volunteer monitoring through the CAMP, RiverWatch; and WHEP programs is also described.

Motion by Jaeger, second by Orred to accept the 2020 Shingle Creek Monitoring Plan sans the Twin Lake carp aging study. *Motion carried unanimously.*

B. West Mississippi. The Commission undertook stream and outfall monitoring in 1990-1992 and found that the water quality of runoff from the watershed was generally within ecoregion norms. Since much of the watershed was poised to develop under Commission rules regulating the quality and rate of runoff, the Commission elected to discontinue further monitoring. In 2010 and 2011 the Commission authorized a repeat of the 1990-1992 monitoring, to determine current conditions and evaluate whether the development rules were protective of downstream water quality. The Third Generation Plan and subsequent budgets have incorporated ongoing, routine monitoring for West Mississippi that includes monitoring flow and water quality at two sites per year on a rotating basis.

Staff's February 6, 2020 memo* presents the proposed 2020 monitoring program. The 65th Avenue outfall and the Environmental Preserve outlet will be monitored in 2020 for flow and water quality using automatic samplers. Continuous flow will be monitored using pressure transducers, and water quality will be analyzed through field parameter measurements, periodic grab samples and storm composite sampling using ISCO automated samplers purchased by the Commission in 2010.



Due to continued difficulties accessing the 65th Avenue outfall in the past, Staff recommend moving the monitoring point to an upstream manhole and sub-contracting with the Mississippi Watershed Management Organization (MWMO) to perform the monitoring. MWMO has experience and equipment for doing stream monitoring in confined spaces like stormwater pipes and can perform the monitoring safely and efficiently. A draft agreement* including a cost estimate from MWMO is included in the meeting packet and has been reviewed by the Commission's attorney.

The 2020 budget for routine monitoring is \$20,000; however, with the increased cost of performing in-manhole monitoring from MWMO, the cost could be up to \$24,200. Staff have identified a few options for 2020: 1) proceed with the monitoring plan as presented even though it exceeds the 2020 budget, and allocate up to \$4,200 from reserves to cover the overage; 2) choose another site other than the 65th Avenue outfall to monitor in tandem with the Environmental Preserve to stay within the 2020 budget; or 3) complete only the Environmental Preserve monitoring and continue to look into other options for future monitoring of the 65th Avenue outfall, which will require increased time and resources from Wenck staff. Staff recommends option 1. One reason for this recommendation is that MnDOT and its contract engineers are in the early stages of redesigning the TH252/I-94 corridor, and any available hydrologic data is helpful to them in understanding the hydrology and hydraulics of the area.

Staff's memo also describes the volunteer monitoring that will occur through the RiverWatch and WHEP programs.

Motion by Butcher, second by Jaeger to approve the Professional Services Agreement with the MWMO. *Motion carried unanimously.*

Motion by Jaeger, second by Butcher to accept the 2020 West Mississippi Monitoring Plan incorporating Option 1. *Motion carried unanimously.*

[Prasch departed 2:27 p.m.]

C. CAMP.* Metropolitan Council is gearing up for the 2020 CAMP monitoring season. They are requesting the names of the lakes the Commission plans to enroll for 2020. According to the Commission's 2020 Water Quality Plan, Twin, Ryan, Meadow and Success will be monitored as part of 2020 CAMP.

D. MTDs.* There has been ongoing discussion between representatives of various WMOs and cities in the metro area and the MPCA regarding **Manufactured Treatment Devices** (MTDs). WMOs and cities would like the MPCA to establish design standards and allowable performance efficiencies in the Stormwater Manual similar to other BMPs so there is some uniformity of analysis when doing project and permit reviews.

This group - led by Bassett, Nine Mile, Shingle, and Riley Purgatory Creeks and Ramsey-Washington - requested that the MPCA "Cooperate with and support the implementation of the Water Environment Federation's (WEF) Stormwater Testing and Evaluation of Products and Practices (STEPP) verification program, currently under development. Staff prefer this option because the STEPP verification program is already well along in its development, it will be a nationwide program, and MPCA staff are already engaged in the program. Once implemented, the STEPP verification program would validate MTD performance; it would be up to the states (e.g., the MPCA) to certify the MTDs.

Subsequently Mike Trojan at the MPCA held a wider listening session to hear from more entities about how MTDs are being used and how they are being credited. Included in Staff's February 7,



2020 memo are the notes from that meeting. Seth Brown, who is called out in the memo, is the STEPP coordinator at WEF. TAPE, which is also referenced, is the Washington State Technology Assessment Protocol – Ecology Program, which maintains a series of guidance documents.

If anyone is interested in being a part of any work group, contact Commission staff or Mike Trojan directly and they will forward that information. Otherwise, Staff will keep the Commissions apprised of any progress on this topic. It was the consensus of the TAC members that the Commissions should not fund devices as they are being certified. Certification should be paid for by the manufacturers.

E. Minutes* of the January 9, 2020 TAC meeting were included in the meeting packet as information. The **next TAC meeting** is scheduled for 11:00 a.m., prior to the March 12, 2020 regular meeting.

IX. Education and Public Outreach.

A. 2019 NPDES II (National Pollutant Discharge Elimination System Phase II) Annual Report.* The Commissions conducted a number of activities in 2019 in fulfillment of their Third Generation Management Plan education and public outreach goals. They are described in the draft report and may be extracted from the report by the member cities and incorporated into their own MS4 reports. Staff will email the report to the TAC members in Word format.

Motion by Quinn, second by Wills to accept the report on behalf of the Shingle Creek Commission. *Motion carried unanimously.*

Motion by Jaeger, second by Johnson to accept the report on behalf of the West Mississippi Commission. *Motion carried unanimously.*

B. WMWA.* The West Metro Water Alliance met on Tuesday, February 11, 2020. (Their next meeting is scheduled for 8:30 a.m., Tuesday, March 10, 2020, at Plymouth City Hall. Please check for the location of the meeting room due to building remodeling.)

1. Watershed PREP and Education and Outreach Events Educators have confirmed several school visits for spring semester. Amy Juntunen at JASS (<u>amy@jass.org</u>) has the up-to-date schedule* should anyone wish to sit in on a classroom session. It is also included in the meeting packet. A reminder that the educators are available to table at city and school events, contact Juntunen. The educators, working with local cable provider CCX Media, filmed one of their classroom presentations and are preparing a short promotional video for Watershed PREP for use both in marketing to schools in the four watersheds as well as informing other watersheds about the program. The video is still being edited but should be available soon.

2. Website/Social Media. Catherine Cesnik, the new WMWA Coordinator, will be refreshing the WMWA website, <u>westmetrowateralliance.org/</u>, and updating content. Any input is appreciated. In addition, Cesnik has now taken over social media posting duties. She has compiled a list of city contacts and will be reaching out to them over the next few months to better understand how WMWA can be a resource. The WMWA steering committee particularly discussed options to collaborate on the new or enhanced education and outreach requirements in the draft MN NPDES General Permit.

3. Cesnik and Juntunen are also continuing to collaborate with Rice Creek WD, Blue Thumb, and other interested parties to coordinate fabrication of a tabletop version of the popular **native plant roots display.**



C. Commission Website/Social Media. The website Google Analytics for January 2020 are included in Staff's February 12 memo, along with the Facebook insights for the last 30 days for both Shingle Creek and WMWA. (Facebook Impressions are the number of times a post was viewed in a feed, Engagement is an action- a click, comment, share, or reaction.) The best-performing was a post on January 10, 2020 linking to a CCX media story about the Crystal Lake Management Plan that was shared to several other pages. January Facebook Metrics included: 147 total Likes (3 new), 2758 Impressions, 311 Engagements.

D. The Bassett Creek Watershed Management Commission is sponsoring a **Smart Salting workshop** at Plymouth City Hall on Friday, March 6, 2020. This is a Level 1 MPCA Certification Course for parking lots and sidewalks. It is free to attendees, but only two places remain open as of today.

E. Salt Symposium 2020 will be held August 5, 2020 in Medina. The host, Fortin Consulting, is seeking sponsorships.

Motion by Jaeger, second by Orred to sponsor the symposium at \$250. *Motion carried unanimously.*

Motion by Butcher, second by Jaeger to sponsor the symposium at \$250. *Motion carried unanimously.*

X. Grant Opportunities and Updates.

A. New Hope Cost-Share Reimbursement Request. This item was withdrawn from the agenda for consideration at the March meeting.

B. Staff reported that the grant applications for the **Connections II project** and the **Meadow Lake project** were not funded.

C. Included in the meeting packet was an article* about the **Biochar Group** in New South Wales, Australia. Spector found the article while Google-searching for articles about the Shingle Creek watershed for the NPDES report.

XI. Communications.

A. January Communications Log.* No items required action.

B. Every year *Homeland Security Today** honors stars in the community who are making their own unique, invaluable contributions to advance the mission of keeping American Safe. **Mark Ray, Director of Public Works for Crystal,** received a 2019 award in the category of Innovative Campaign to Forward Mission. He has effectively changed the relationship between the public works and emergency response communities into one of close collaboration and coordination.

XII. Other Business.

XIII. Adjournment. There being no further business before the Commissions, the joint meeting was adjourned at 2:47 p.m.

Respectfully submitted,

hidie Adiduson

Judie A. Anderson, Recording Secretary JAA:tim

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item 04a

3/6/2020

SHINGLE CREEK WATERSHED MANAGEMENT COMMISSION

PROJECT REVIEW SC 2020-001: Crystal Airport

- Owner:Metropolitan Airport CommissionAddress:6040 S 28th AveMinneapolis, MN 55450
- Engineer:Jeremy WalgraveCompany:SEHAddress:3535 Vadnais Center DrSt. Paul, MN 55110

Phone: 612-750-4574

Fax:

- **Email:** jwalgrave@sehinc.com
- **Purpose:** Redevelopment of airport taxiways and runways on 326 acres.
- **Location:** 5800 Crystal Airport Rd, Minneapolis MN 5429 (Figure 1).
- **Exhibits:** 1. Project review application and project review fee of \$3,000, dated 2/27/2020, received 2/27/2020.
 - 2. Site, erosion control, and drainage plans (Figure 2), dated 2/24/2020, received 2/27/2020.
 - 3. HydroCAD models, dated 2/27/2020, received 2/27/2020.
- **Findings:** 1. The proposed project is the redevelopment of Crystal Airport, including modifications to existing runways, removal of taxiways, and construction of a new airport road along the south perimeter. The site is 326 acres. Following development, the site will be 29 percent impervious with 94.1 acres of impervious surface, a decrease of 0.50 acres.
 - 2. The complete project application was received on 2/27/2020. To comply with the 60-day review requirement, the Commission must approve or deny this project no later than the 4/9/2020 meeting. Sixty calendar-days expires on 4/27/2020.
 - 3. 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.

The project proposes increasing runoff routed to an existing infiltration basin and reducing runoff to Wetland 629. Increasing the amount of runoff routed to the infiltration basin will result in a 3-pound reduction in TP exported to Wetland 629. Runoff from new impervious areas will be routed to downgradient adjacent vegetation. The applicant meets Commission water quality treatment requirements.

4. Commission rules require that site runoff is limited to predevelopment rates for the 2-, 10-, and 100-year storm events. Runoff from the site is Page 1 of 4

proposed to be routed to an infiltration basin and vegetation buffering new pavement. Runoff will also continue to be routed to Wetland 639 at a reduced rate from present conditions. The applicant meets Commission rate control requirements (Table 1).

Drainage Area	2-year event		10-year event		100-year event	
	Pre-	Post-	Pre-	Post-	Pre-	Post-
Wetland 639	42.6	42.15	72	71.2	268.9	193.5

Table 1. Runoff from site (cfs).

- 5. Commission rules require the site to infiltrate 1.0 inch of runoff from new impervious area within 48 hours. There is not a net increase in impervious area on this site. The applicant meets Commission volume control requirements.
- 6. The erosion control plan includes filter log roll as slope checks. The erosion control plan meets Commission requirements.
- 7. No National Wetlands Inventory wetlands will be impacted. All work will be located at least 50 feet outside the probable wetland boundaries. The applicant meets Commission wetland requirements.
- 8. There are no Public Waters on this site. The applicant meets Commission Public Waters requirements.
- 9. There is no FEMA-regulated floodplain on this site. The applicant meets Commission floodplain requirements.
- 10. The site is not located in a Drinking Water Management Area (DWSMA). The applicant meets Commission drinking water protection requirements.
- 11. A public hearing on the project has been conducted on 5/29/2019 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements
- 12. A draft Operations & Maintenance (O&M) agreement between the applicant and the City of Minneapolis is not required.
- 13. A Project Review Fee of \$3,000 has been received.

<u>Recommendation</u>: Recommend approval with no conditions.

Wenck Associates, Inc. Engineers for the Commission

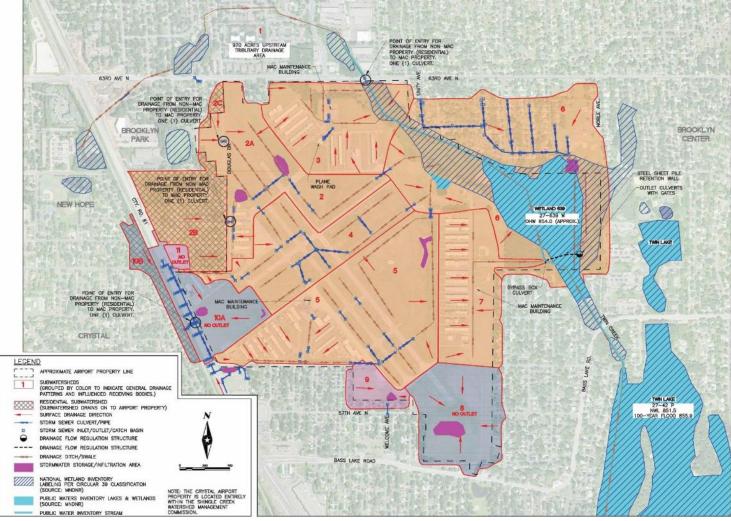
Ed Matthiesen, P.E.

Date

Figure 1. Site location.



Figure 2. Site drainage plan



WEST MISSISSIPPI WATERSHED MANAGEMENT COMMISSION

PROJECT REVIEW WM 2020-002: CBPAMES Building Additions & Renovations

Owner:Anoka-Hennepin Public SchoolsAddress:2727 N Ferry StreetAnoka, MN 55303

Engineer:
Company:Laura DetzlerAddress:Anderson-Johnson Associates, Inc.Address:7575 Golden Valley Road, Suite 200
Minneapolis, MN 55427Phone:
Email:763-544-7129
laura@ajainc.net

- **<u>Purpose</u>**: Construction of a building addition, a playground, and an additional parking lot on 19.5 acres.
- Location: 6100 109th Avenue Champlin, MN 55316 (Figure 1).
- **Exhibits:** 1. Project review application and project review fee of \$1,700, dated 2/24/2020, received 2/27/2020.
 - 2. Site plan, preliminary plat, grading (Figure 2), utility, erosion control, and landscaping plans dated 11/19/2019, received 2/27/2020.
 - 3. HydroCAD model, dated 2/26/2020, received 2/27/2020.
- **Findings:** 1. The proposed project is the construction of a parking lot, playground, and one building addition at the Champlin/Brooklyn Park Academy for Math and Environmental Sciences (CBPAMES). The site is 19.5 acres. Following development, the site will be 25 percent impervious with 4.8 acres of impervious surface, an increase of 0.5 acres.
 - 2. The complete project application was received on 2/27/2020. To comply with the 60-day review requirement, the Commission must approve or deny this project no later than the 4/9/2020 meeting. Sixty calendar-days expires on 4/27/2020.
 - 2. 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 to two new infiltration basins on the north side of the property. The applicant meets Commission water quality treatment requirements.

3. Commission rules require that site runoff is limited to predevelopment rates for the 2-, 10-, and 100-year storm events. Runoff from the site

will be directed to two new infiltration basins. The applicant meets Commission rate control requirements (Table 1).

Table 1. Runoff from site (cfs).

Drainage Area	2-year event		10-year event		100-year event	
	Pre-	Post-	Pre-	Post-	Pre-	Post-
Entire Site	4.9	3.1	17.1	10.3	52.2	43.1

- 4. Commission rules require the site to infiltrate 1.0 inch of runoff from new impervious area within 48 hours. The new and reconstructed impervious area on this site is 1.729 acres, requiring infiltration of 6,272 cubic feet within 48 hours. The applicant proposes the two new infiltration basins that have the capacity to infiltrate the required volume within 48 hours. The applicant meets Commission volume control requirements.
- 5. The erosion control plan includes a rock construction entrance, sediment control log surrounding the newly constructed infiltration basins, silt fence surrounding, inlet protection, rip rap at infiltration basin inlets, erosion control blanket on exposed soils, and seed mix specified in the infiltration basins. The erosion control plan meets Commission requirements.
- 6. The National Wetlands Inventory does not identify any wetlands on site, but a wetland determination identified one small wetland (0.002 acres) that will be filled in by the building addition. The City of Champlin is LGU for WCA administration.
- 7. There are no Public Waters on this site. The applicant meets Commission Public Waters requirements.
- 8. There is no FEMA-regulated floodplain on this site. The applicant meets Commission floodplain requirements.
- 9. The site is not located in a Drinking Water Management Area (DWSMA). The applicant meets Commission drinking water protection requirements.
- 10. A public hearing on the project was conducted on 10/21/2019 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements
- 11. A draft Operations & Maintenance (O&M) agreement between the applicant and the City of Champlin is not required.
- 12. A Project Review Fee of \$1,700 has been received.

<u>Recommendation</u>: Recommend approval subject to the following condition(s): [with no conditions.]

1. Ensure that the operations and maintenance plan for the new infiltration basins is agreeable to the city.

Wenck Associates, Inc. Engineers for the Commission

Ed Matthiesen, P.E.

Date

Figure 1. Site location.



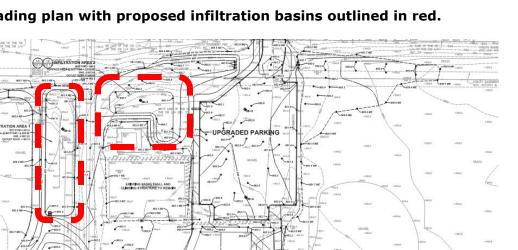


Figure 2. Site grading plan with proposed infiltration basins outlined in red.



WEST MISSISSIPPI WATERSHED MANAGEMENT COMMISSION

PROJECT REVIEW WM2020-003: Kurita

- Owner:James Michael Seed TrustAddress:42 Ladd Street, Suite 317Greenwich, RI 02818
- Engineer:Tom RehwaldtCompany:Ryan Companies US, Inc.Address:533 S 3rd St, Suite 100
Minneapolis, MN 55415Phone:612-492-4712
615492-3712Fax:615492-3712
Thomas.rehwaldt@ryancompanies.com
- **Purpose:** Construction of a building, parking lot, and loading dock on 98 acres.
- **Location:** 6600 94th Ave N, Brooklyn Park, MN 55443 (Figure 1).
- **Exhibits:** 1. Project review application and project review fee of \$2,200, dated 2/27/2020, received 2/27/2020.
 - 2. Site plan (Figure 2), preliminary plat, grading utility, erosion control, and landscaping plans dated 1/31/2020, received 2/27/2020.
 - 3. HydroCAD calculations, dated 1/29/2020, received 2/27/2020.
- **Findings:** 1. The proposed project is the construction of a new building, parking lot, and loading dock on vacant farmland with potential 1.1-acre future expansion. The site is 54 acres. Following development, the site will be 15 percent impervious with 8 acres of impervious surface, an increase of 8 acres.
 - 2. The complete project application was received on 2/27/2020. To comply with the 60-day review requirement, the Commission must approve or deny this project no later than the 4/9/2020 meeting. Sixty calendar-days expires on 4/27/2020.
 - 2. 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 to three infiltration ponds on the property that have outlets on the north and southwest side of the property. The applicant has demonstrated that two of the onsite ponds meet the alternative design requirement of infiltrating 1.3 inches of runoff from the site, meeting Commission requirements.

3. Commission rules require that site runoff is limited to predevelopment rates for the 2-, 10-, and 100-year storm events. Runoff from the site is

routed to 3 ponds on the property. The applicant meets Commission rate control requirements (Table 1).

Table 1. Runoff from site (cfs).

Drainage Area	2-year event		10-year event		100-year event	
	Pre-	Post-	Pre-	Post-	Pre-	Post-
NW to MNDOT pond	2.10	1.20	10.0	5.10	37.6	15.0
SW to LDI pond	1.00	0.60	5.20	1.20	19.5	9.10

- 4. 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 8 acres, requiring infiltration of 0.67 acre-feet within 48 hours. Two ponds on the property have the capacity to infiltrate the required volume within 48 hours. The applicant meets Commission volume control requirements.
- 5. The erosion control plan includes two rock construction entrances, perimeter silt fence, silt fence surrounding the newly constructed infiltration basins, inlet protection using flared end sections, erosion control blankets on basin slopes, and rock check dams. The erosion control plan meets Commission requirements.
- 6. The National Wetlands Inventory does not identify any wetlands on site. The applicant meets Commission wetland requirements.
- 7. There are no Public Waters on this site. The applicant meets Commission Public Waters requirements.
- 8. There is no FEMA-regulated floodplain on this site. The low floor elevations of the buildings are at least two feet higher than the high-water elevation of the infiltration basins according to Atlas 14 precipitation. The applicant meets Commission floodplain requirements.
- 9. The site is located in a Drinking Water Management Area, but is outside of the Emergency Response Area. The applicant meets Commission drinking water protection requirements.
- 10. A public hearing on the project will be conducted on 3/11/2020 and 3/30/2020 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.
- 11. A draft Operations & Maintenance (O&M) agreement between the applicant and Brooklyn Park was not provided. The newly constructed infiltration basins will be privately maintained.
- 12. A Project Review Fee of \$2,200 has been received.

Recommendation: Recommend approval subject to the following condition:

1. Ensure that the operations and maintenance plan for the new infiltration basins is agreeable to the city.

WM 2020-003:

Wenck Associates, Inc. Engineers for the Commission

Ed Matthiesen, P.E.

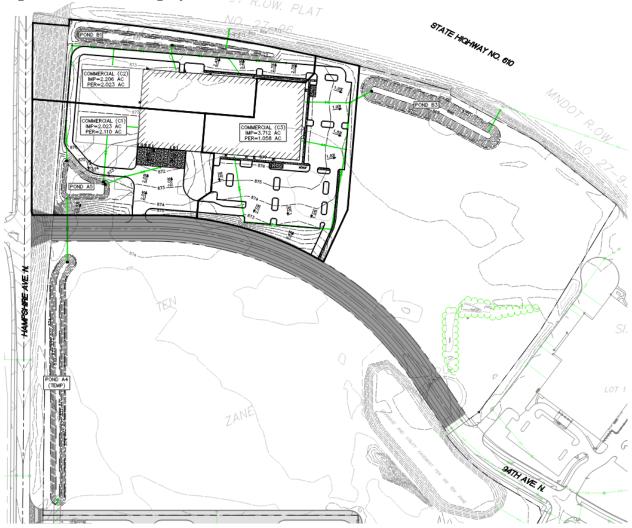
Date

Figure 1. Site location.



WM 2020-003:

Figure 2. Site drainage plan.







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To: Shingle Cree		Shingle Cree	ek/West Mississippi WMO Commissioners				
From:		Ed Matthiesen, P.E. Diane Spector					
Date:		March 6, 2019					
Subject: Recomment Commission		Presentatio	n for Cities				
			Review slides and make revisions as desired.				

The Commissioners had expressed an interest in having a standard presentation they could give to their respective City Councils to highlight the Commission accomplishments. Attached is a draft presentation that includes some general background, some history, and some accomplishments as well as an overview of recent projects. The presentation is annotated to help you make the presentation.

We will run through it at the March 12 meeting (any volunteers?) and would appreciate your input on revisions or additions for the final version.

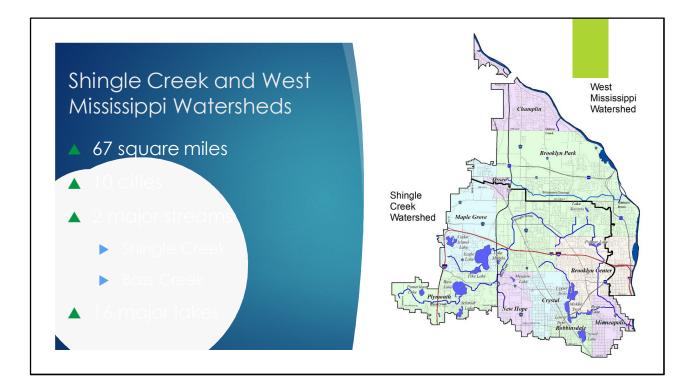
Note: When the presentation was pdf'd, mysterious white bubbles showed up on some of the slides. They are not on the presentation, but we apologize, we couldn't figure out where they were coming from and if they could be deleted. We'll keep looking!

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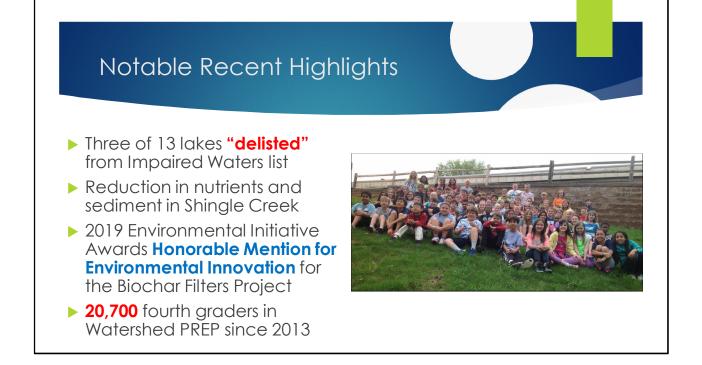
The shingle Creek and West Mississippi Watershed Management Organizations are overseen by commissions of citizen volunteers, one from each member city. There is also a Technical Advisory Committee made up of city staff, mostly from the engineering departments. The Commissions don't employ any staff, but have engaged long-time consultants to help manage the day to day operations of the watersheds. This presentation is an overview of recent achievements as well as long term trends in water quality. It also touches on the of the priority activities that we will be focusing on in the next few years as we come to the end of our most recent ten year plan, which expires at the end of 2022. Next year we will start the process of developing our next ten year plan, so it's good to take a step back and review where we are.



Shingle Creek and West Mississippi are two separate joint powers organizations. We refer to them as sister watersheds because they have several overlapping cities and do many things jointly. They have a joint management plan with the same goals and policies, they have the same development rules and standards, and the Commissions meet jointly every second Thursday.

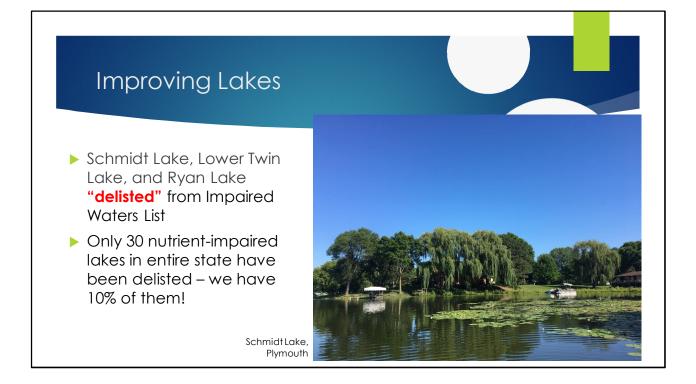


State statutes charge watershed management organizations with several responsibilities. These include: Improve water quality; prevent flooding and erosion; promote groundwater recharge; protect and enhance fish and wildlife habitat and water recreation; reduce the cost of controlling excessive volumes and rate of runoff and improving water quality; and secure other benefits associated with proper management of surface water. To accomplish this the watersheds work in five primary areas (see bullets).

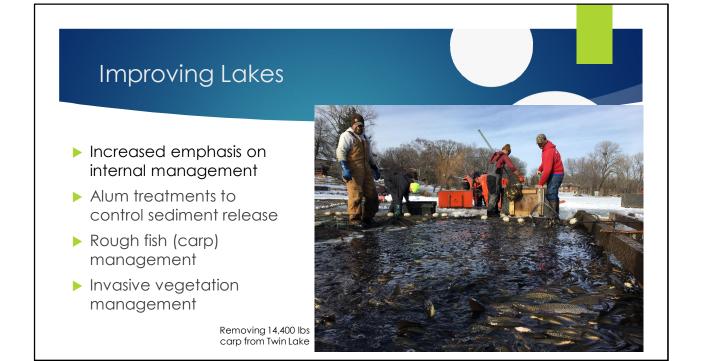


Here are a few of the recent accomplishments in the watershed., which I'll talk about in more detail later. You may know that under the federal Clean Water Act waterbodies in Minnesota -- and all across the country- that don't meet water quality standards are called out on each state's List of Impaired Waters. All the stakeholders who discharge stormwater into those Impaired Waters are then legally responsible for reducing pollutants to restore that water quality, whether it's a lake, stream, river, or wetland. In Shingle Creek, 13 of the 16 lakes in the watershed were initially listed as Impaired Waters for having excessive concentrations of nutrients, which cause algae blooms and other impacts. Shingle Creek is Impaired for excess chloride from road salt; low dissolved oxygen; and impaired fish and macroinvertebrate communities. Well, all the work that cities and developers and residents have been doing to help improve water quality is paying off. We can now document that water quality in our lakes and streams is starting to get better. Three of the lakes have been "delisted" due to improved water quality. We still have a ways to go, but one of the things the watershed is focusing on is identifying and testing new ways to treat storm water. It's not feasible to install ponds or rain gardens everywhere, and those practices don't work for all pollutants. The Commission has been successful at obtaining grants to try new practices and to verify their effectiveness before cities spend funds to adopt them. One of the projects was awarded an Honorable Mention for Environmental Innovation by the nonprofit group Environmental Initiative. Finally, Shingle and West Mississippi along with Elm Creek and Bassett Creek formed the West Metro Water Alliance (WMWA) to jointly

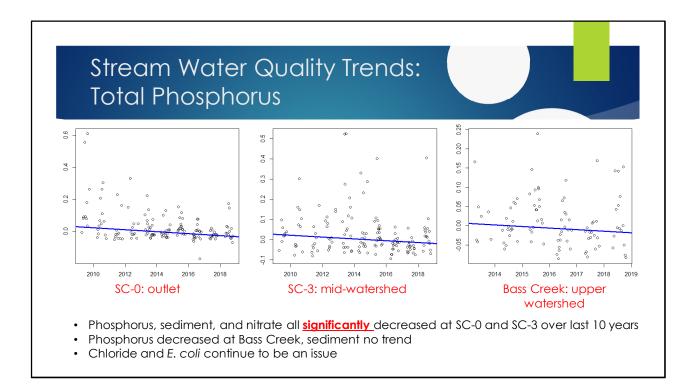
provide education and outreach across the four watersheds. One of the more successful efforts has been Watershed PREP, a program that brings WMWA educators into fourth grade classrooms for science classes.



The cities (and Hennepin County and MnDOT) and residents have been actively reducing the nutrients and sediment from the watershed through projects like sediment ponds, underground chambers, rain gardens and enhanced street sweeping. Water quality in three lakes has been improved so that they now meet the state nutrient standard and have officially been removed from the state's list of Impaired waters. They are now "protection" status lakes. We don't walk away from them, but the emphasis changes to making sure they do not backslide and start getting worse again.



While the cities (and Hennepin County and MnDOT) have been actively reducing the nutrients and sediment from the watershed through projects like sediment ponds, underground chambers, and enhanced street sweeping, the Commission has been working on in-lake improvements to manage fish and aquatic vegetation, which is especially important in shallow lakes. Carp are bottom feeders and they stir up sediments when the feed, which releases phosphorus form the sediments back up into the water column. This also reduces water clarity. Invasive vegetation like curly-leaf pondweed can out compete the native vegetation that provides habitat for fish. It dies off in late summer, and releases phosphorus which can cause August algae blooms.



All these pollutant reductions in the watershed also helps to improve water quality in our streams. Our two main streams that we monitor are Shingle Creek and Bass Creek. These graphs show the statistical trend analysis for the past ten years. We are seeing statistically significant improvements in water quality in both steams, with the exception of chloride and bacteria, which are harder to deal with. This year (2020) will be our 20th year of routine monitoring.



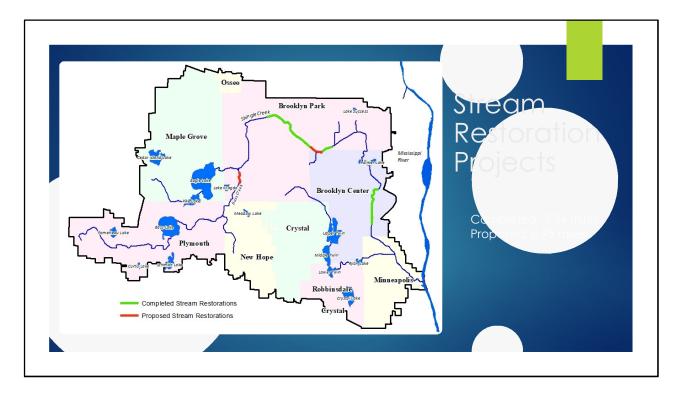
The photo shows a project in the city of Robbinsdale. As part of Noble Avenue reconstruction, the city added underground infiltration devices at the 37th Avenue N intersection. The Commission contributed \$50,000 in cost-share funds toward this \$350,000 project. These chambers store runoff under the intersection and allow it to percolate into the ground rather than drain downstream to Crystal Lake.



The Commission worked with the City of Crystal to find potential projects in the Crystal Shopping Center area at Bass Lake Road and Bottineau Boulevard/W. Broadway. Becker Park is on the "downstream" side of the commercial area, and was the ideal location for an underground treatment system. At the same time the City was "re-imagining" the park to replace the existing ballfields with more flexible community spaces. In 2019 a City project installed over 1.42 miles of 72" perforated pipe under what became a performance lawn. This pipe has the capacity to hold 2.2 million gallons of stormwater runoff, allowing it to infiltrate into the groundwater. This prevents over 100 pounds of phosphorus from entering Upper Twin Lake each year. The above photo shows the second of three phases of pipe installation. The Commission helped the City obtain \$1.175 in grant funding from the Clean Water Fund, Hennepin County and the Met Council, and contributed another \$250,000 toward the \$2.5 million project.



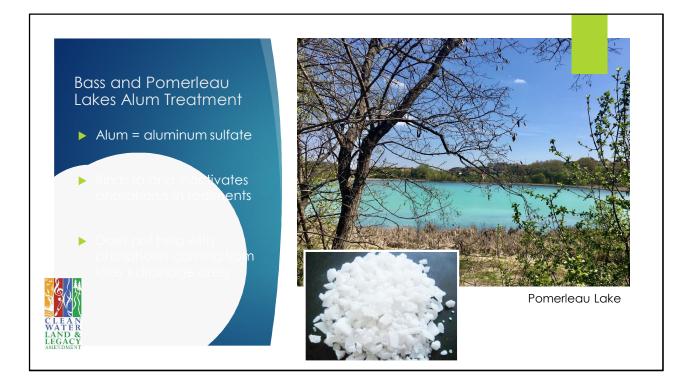
Assisting with project funding is one of the Commissions' core activities. Both Shingle Creek and West Mississippi have a Capital Improvement Program and a Cost Share Policy. For qualifying capital projects, the Commissions can share in 25% of the cost of the project. For smaller projects, those typically costing \$100,000 or less, the Commission can share in 50% of the project. Shingle Creek also has a cost share program for voluntary improvements on private property that will pay for up to 100% of the cost up to \$50,000. The source of these funds is a levy Hennepin County spreads across all property in the respective watershed. The Commission has also been very successful at obtaining grants to help cities pay for water quality projects.



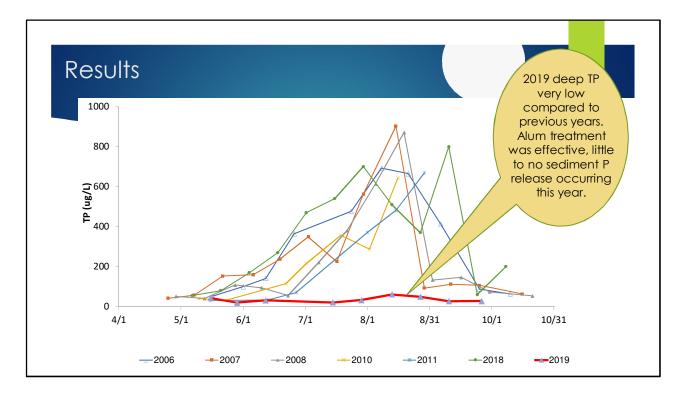
One of the causes of excess sediment in streams is erosion of stream banks. The Commission and cities have restored over 3.3 miles of the creek's 11 miles, with another 0.75 proposed in the next few years. These projects also include improvements to fish and wildlife habitat. While we tend to get focused on water quality, we also are responsible for protecting and improving fish and wildlife habitat and quality, so we try to meet multiple objectives with these projects.



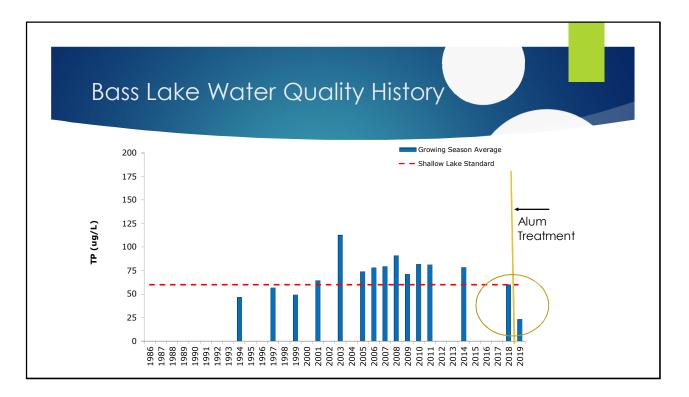
This recent stream restoration project adjacent to Park Center High School straddles the border between Brooklyn Center and Brooklyn Park. The Commission received a \$200,000 Clean Water Fund grant for the project. The City of Brooklyn Park installed a "missing link" trail along the stream and collaborated with the school district to add an outdoor classroom. Students at Park Center HS have monitored macroinvertebrates at this site for over 20 years.



Another capital improvement that is becoming more frequent is lake alum treatment. Bass and Pomerleau are in the City of Plymouth in the upper watershed. Alum is a slurry that is injected into the water at the surface (lake temporarily turned turquoise for a day). Alum is not toxic to fish or humans – it's like adding Maalox into the lake. As it falls to the bottom it attracts and binds phosphorus in the water column into clumps called floc. When it falls to the bottom of the lake it forms a crusty barrier that prevents the sediments from releasing phosphorus. There is an immediate improvement in lake water quality and clarity. Alum is applied in multiple treatments one to two years apart. When properly applied can have a 10-20 year life span. The Commission received a \$267,000 Clean Water Fund grant for the project.



How effective is alum? This graph show the concentration of phosphorus at the bottom of Bass Lake. In each of the previous years, the line graphs show that the concentration increases throughout the summer as the amount of oxygen in the bottom of the lake. As algae in the lake die off, they sink to the bottom, where bacteria consume the dead material. The bacteria use up the oxygen in the water. In those low-oxygen conditions, the chemical bond holding phosphorus to the sediments breaks, and phosphorus is released up into the water column. This causes more algae to grow and the cycle starts over. In spring 2019, Bass (and Pomerleau) received an alum treatment. The red line shows that the phosphorus concentration in the water on the bottom of the lake just above the sediments stayed low throughout the summer., showing the treatment was effective. A second treatment will be applied in 2021.

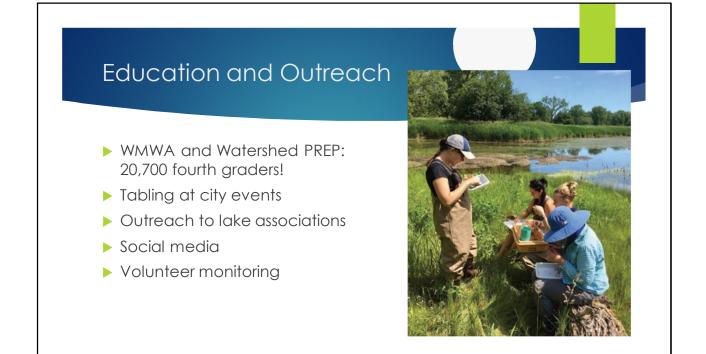


This figure shows the annual average concentration of phosphorus in Bass Lake. The red dashed line is the state water quality standard. All the blue bars should be below that dashed line. In the past few decades the lake water quality was regularly worse that the state standard. But after the alum treatment in early 2019, water quality improved dramatically. We saw the same response in Pomerleau Lake, which also was treated.



One of the priorities of the Commissions is to stay abreast of emerging science and new technologies and to help the member cities assess their feasibility and usefulness before investing in them. The Commission has been successful at obtaining research grants to help fund this research. Here are four examples. The first is the Paired Intersection Study which evaluated whether porous asphalt pavement on city streets could reduce the need to apply road salt. The study found that porous asphalt with no salt applied resulted in about the same amount of ice-free pavement as salted, traditional asphalt, however, it took a few to several hours longer to get there. Not a magic bullet for streets, but useful in other applications. Another research projects was developing DIY modular green roofs that could be built from common gardening supplies and added to most roofs. It worked, but the market caught up and they are now available commercially for about the same cost as making it yourself. A third research project, which received an Environmental Initiative Award, showed that adding biochar – a special type of charcoal – to sand filters that were also enhanced with iron filings could remove 80-90 percent of bacteria in stormwater runoff. This was the first field test in North America of an idea that had previously only been seen in the lab. Finally, a current project is looking at different types of media and how effective they are at reducing dissolved phosphorus from discharge from a wetland. One of the earlier slides showed that we've made great strides reducing sediment and particulate phosphorus from runoff going to lakes and streams, but we still have problems with E. coli, chloride, and dissolved phosphorus. These research projects are evaluating the

best ways of tackling those over the next ten years.

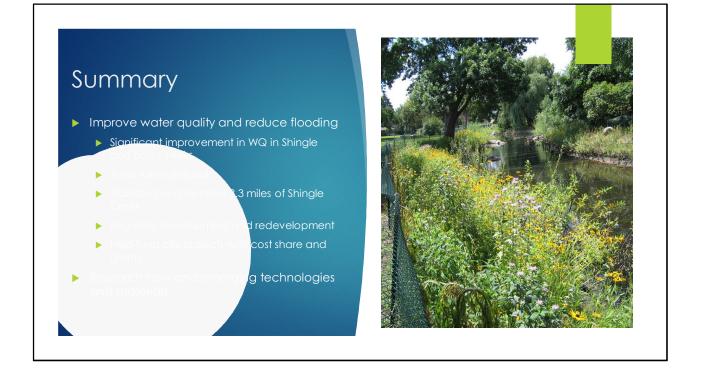


An earlier slide mentioned WMWA and the Watershed PREP program for fourth graders. The consortium of Shingle Creek, West Mississippi, Elm Creek, and Bassett Creek contracts with two licensed science teachers to offer two different classroom lessons. These lessons meet Minnesota science curriculum requirements and focus on basic hydrology and understanding what a watershed is and where the rain goes. The educators also appear at science fairs and science nights at schools. In 2019 the educators visited 26 elementary schools across the four watersheds, both public and private, and presented to 162 classes. The educators and watershed consulting staff also table at city events and regularly speak to lake associations. The Commissions have a small but vocal social media presence and invite your likes and follows. Finally, another sort of outreach is citizen volunteers who monitor our lakes, streams, and wetlands. We work with Hennepin County, which manages the RiverWatch program for high school students and the wetland Health Evaluation Program WHEP, which is adult volunteers who monitor wetland vegetation and insect health. Shingle Creek works with the Met Council on the Citizen Assisted Monitoring Program (CAMP), where volunteers take lake water quality samples at various locations across the seven county Metro area.

Upcoming Projects

- ▶ Bass and Pomerleau Lakes Alum
- Twin and Ryan Lakes Ongoing Carp Management
- Crystal Lake Carp Management and Alum Treatment
- Meadow Lake Drawdown
- Connections II Stream Restoration Project







MINUTES

February 13, 2020

A meeting of the Technical Advisory Committee (TAC) of the Shingle Creek and West Mississippi Watershed Management Commissions was called to order by Chairman Richard McCoy at 11:11 a.m., Thursday, February 13, 2020, at Edinburgh USA, 8700 Edinbrook Crossing, Brooklyn Park, MN.

Present were: Andrew Hogg, Brooklyn Center; Mitch Robinson, Brooklyn Park; Mark Ray, Crystal; Derek Asche, Maple Grove; Shahram Missaghi, Minneapolis; Megan Hedstrom, New Hope; Ben Scharenbroich and Amy Riegel, Plymouth; Richard McCoy and Marta Roser, Robbinsdale; Ed Matthiesen and Diane Spector, Wenck Associates, Inc.; and Judie Anderson, JASS.

Not represented: Champlin and Osseo.

Also present: Burt Orred, Jr., Crystal; Harold E. Johnson and James Kelly, Osseo; Andy Polzin, Plymouth; and Laura Scholl and Jennifer Ehlert, Metro Blooms.

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

II. Motion by Ray, second by Robinson to **approve the minutes***of the January 9, 2020 meeting. *Motion carried unanimously.*

III. Cost Share Application – Brooks Landing.

A. The City of Brooklyn Park has submitted a Partnership Cost Share Program application on behalf of Boisclair Corporation and Metro Blooms for improvements at Brooks Landing Senior Apartments. The various site improvements include replacing the parking lot, adding two raingardens to treat runoff from the parking lot and sidewalk, and adding some amenities such as benches and landscaping. The cost share would be applied to the rain garden portion of the project. Similar to the Autumn Ridge project, Metro Blooms will provide outreach and stewardship opportunities for residents of the development.

B. At the January 9, 2020 TAC meeting members discussed the cost-effectiveness of the proposal which requested \$50,000 from the program. The estimated load reduction is 1.75 pounds of TP annually, or about \$28,000 per pound of TP removed. The proposed project is in the Directly Connected Impervious Area and is a priority for treatment retrofits. Commission Staff's maximum comfort level is about \$10,000/pound unless there are other significant benefits. Following discussion, the TAC recommended to the Commission that the project be funded at \$20,000. The Shingle Creek Commission approved funding at that amount at their January 9, 2020 meeting.

SCWM TAC Meeting Minutes February 13, 2020 Page 2



C. Metro Blooms staff returned to this meeting with a revised proposal.* After revisiting stormwater modeling and site design they are able to capture 3.9 pounds of TP annually and have requested an additional \$10,000 from the January 9th TAC recommendation, for a total of \$30,000. This site was awarded a Lawns to Legumes demonstration site and funding from that grant will also be applied to the raingarden.

Motion by Ray, second by Robinson to recommend to the Commission approval of an additional \$10,000 of funding for this project. *Motion carried unanimously.*

IV. 2020 CIPs.*

Staff's February 7, 2020 memo shows the current status of the CIP for each watershed. As in past years, there are some projects on the CIP that are placeholders that need additional detail to implement or are associated with potential development or redevelopment that has not yet occurred. These usually are rescheduled to a future year and no plan amendment is required for that action.

Typically, the TAC hears feasibility studies for proposed projects and makes a recommendation to the Commissions in April of each year as to which projects to consider for that year's CIP and whether any minor plan amendments are necessary. This all goes to the Commissions, which set the maximum levies and forward that information to Hennepin County. The County goes through its public hearing and maximum levy setting process, usually done by the end of June. The process then comes back to the Commissions to hold public hearings on proposed projects and set a final levy.

Table 3 of the memo, which assumes that many of the projects currently shown for 2020 will be rescheduled for later years, estimates a 2020 levy of \$825,000. In 2019 the Commissions amended their Management Plan to raise the annual voluntary maximum levy to \$750,000, with the thinking that that number will climb to \$1 million by 2022. Potentially, the Bass Creek Restoration Project could be considered in 2020, which would add anywhere from \$300,000 - \$400,000 to that levy, raising it well above the voluntary \$750,000 maximum.

Both the Cost-Share program and the Partnership Cost Share program currently have balances of about \$120,000 (plus an additional \$100,000 to be received this year) and \$150,000 (plus \$50,000), respectively. The Commissions could get by without certifying levy for either of these programs in 2020, if need be.

It was suggested that the Commissions maintain secondary CIPs that include projects with no years attached, thus reducing the annual totals on the primary CIP.

Staff emphasized that if cities have projects for the 2020 CIP they need to know about them now.

V. Manufactured Treatment Devices (MTDs).*

There has been ongoing discussion between representatives of various WMOs and cities in the metro area and the MPCA regarding Manufactured Treatment Devices (MTDs). WMOs and cities would like the MPCA to establish design standards and allowable performance efficiencies in the Stormwater Manual similar to other BMPs so there is some uniformity of analysis when doing project and permit reviews.

This small group - led by Bassett, Nine Mile, Shingle, and Riley Purgatory Creeks and Ramsey-Washington - requested that the MPCA "Cooperate with and support the implementation of the Water Environment Federation's (WEF) Stormwater Testing and Evaluation of Products and Practices (STEPP) verification program, currently under development. Staff prefer this option because the STEPP verification program is already well along in its development, it will be a nationwide program, and MPCA SCWM TAC Meeting Minutes February 13, 2020 Page 3



Staff are already engaged in the program. Once implemented, the STEPP verification program would validate MTD performance; it would be up to the state (e.g., the MPCA) to certify the MTDs.

Subsequently Mike Trojan at the MPCA held a wider listening session to hear from more entities about how MTDs are being used and how they are being credited. Included in Staff's February 7, 2020 memo are notes from that meeting. Seth Brown, who is called out in the memo, is the STEPP coordinator at WEF. TAPE, which is also referenced, is the Washington State Technology Assessment Protocol – Ecology program, which maintains a series of guidance documents.

If anyone is interested in being a part of any work group, they should contact Mike Trojan directly, mike.trojan@pca.state.mn.us, or Commission staff and they can forward that information. Otherwise, Staff will keep members apprised of any progress on this topic.

It was a consensus of the members that the Commissions should not fund devices as they are being certified. Certification should be paid for by the manufacturers.

VII. Other Business.

A. Plymouth Street Sweeper.* Scharenbroich provided a copy of the quote from Environmental Equipment. It details the cost of the sweeper, which is included on the Commission's CIP and included in the meeting packet for informational purposes.

B. MS4 comments. Members discussed various revisions and updates to the proposed MS4 permit.

C. Cost of Maintenance. A recurring question is how to fund the cost of maintenance of projects the Commissions undertake. The members will ask the Commissions to direct the TAC to consider this issue.

VIII. Next Meeting.

The next Technical Advisory Committee meeting is scheduled for 11:00 a.m. Thursday, March 12, 2020, prior to the Commissions' regular meeting.

The meeting was adjourned at 12:23 p.m.

Respectfully submitted,

hidi Adedustr

Judie A. Anderson Recording Secretary

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



Date	From	То	SC	WM	Description
2-4-20	John Knutson @ Loucks	Ed Matthiesen	Х	Х	Project review requirements for Wedgwood development in Maple Grove
	Stephan Mastey,	Meaghan Watson, Diane	х		Request for clarification of wetland buffer requirements for upcoming
2-6-20	Landscape Architecture	Spector	^		improvements at Crescent Cove
2-7-20	Brian Johnson, MCES	Diane S	Х		Request for notification of this year's CAMP lakes
			х		Clarification of Commission requirements for upcoming reconstruct of W.
2-7-20	Eric Roerish, SRF	Ed M.	^		Broadway bridge over Memorial/Wirth Parkway
2-10-20	Bill Alms @ WSB	ED M.		Х	Mississippi River Crossings workshop meeting
	Ben Ford @ Rehder		х		
2-14-20	Assoc.	Ed M.	^		Project review needs for Kipp Academy expansion in Minneapolis
	Katie Warner @ Three				
	Rivers Park Reserve		Х		
2-14-20	District	Ed M.			Wetland delineation for 639W
	Mark Marrinan @ TDA		х		Use of 639W overflow structure for product testing
2-17-20	Manufacturing	Ed M.	~		ose of oss w overhow structure for product testing
2-19-20	Bill Alms @ WSB	Ed M.		Х	Mississippi River Crossings Development
	Tim Olson @ Bolton-		х		Brooklyn Center Opportunity Development
2-19-20	Menk	Ed M.	~		
			х	x	Notification that he will no longer serve as Area Hydrologist for Hennepin
2-28-20	Jason Spiegel, MnDNR	SCWM	~	~	County. The new temporary Area Hydrologist will be BJ Bonin.
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Send Log to: