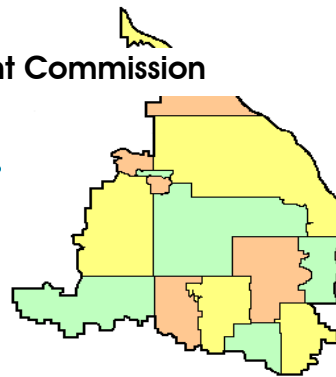




Shingle Creek Watershed Management Commission



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

June 28, 2019

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, July 11, 2019**, at Clubhouse 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.

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

Your meal choices are:

Grilled Steak Salad, Mixed Greens, Bacon, Blue Cheese, Grilled Scallions, Avocado, Smoked Tomato Vinaigrette (gluten free) (all dressing will be served on the side), Freshly Baked Breads

Mahi, Roasted Root Vegetables, Red Potatoes, Crème Fraiche, Chives, Romesco (gluten free)

Turkey and Bacon Sandwich, Provolone Cheese, Lettuce, Tomato, Basil Aioli, Focaccia, Kettle Chips

I will be attending but DO NOT want a meal.

I will not be attending the regular meeting.

We must make final reservations by **noon Wednesday, July 3, 2019**. 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

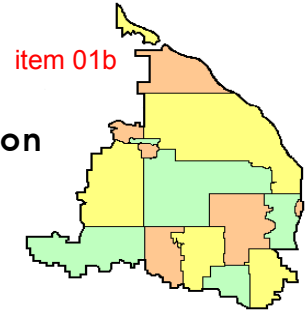
cc: Alternate Commissioners
 Metropolitan Council

Member Cites
 Wenck Associates

Troy Gilchrist

TAC Members

.Z:\Shingle Creek\Meetings\Meetings 2019\07_Notice_Meeting.docx



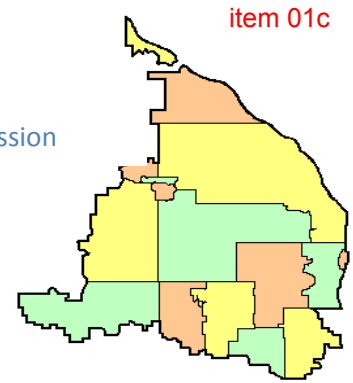
3235 Fernbrook Lane N • Plymouth, MN 55447
 Tel: 763.553.1144 • Fax: 763.553.9326
 Email: judie@jass.biz • Website: www.shinglecreek.org

A combined regular meeting of the Shingle Creek and West Mississippi Watershed Management Commissions will be convened on Thursday, July 11, 2019, 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>.

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.**
 - ✓ SC b. Approve Claims** - voice vote.
 - ✓ WM c. Treasurer's Report.**
 - ✓ WM d. Approve Claims** - voice vote.
3. Open Forum.
4. Project Reviews.
 - ✓ SC a. SC2019-009 Lake Road Apartments, Robbinsdale.*
 - ✓ WM b. WM2019-005 Data Recognition Center Addition, Brooklyn Park.*
5. Watershed Management Plan.
 - ✓ SCWM a. Proposed Minor Plan Amendment.*
6. Water Quality.
 - SCWM a. Next TAC meeting –8:30 a.m., Thursday, July 25, 2019, Crystal City Hall.
 - 1) June 21, 2019 TAC Meeting Minutes* - *information only*.
7. Education and Public Outreach.
 - SCWM a. Education and Outreach – update.**
 - SCWM b. Next WMWA meeting – tentatively 8:30 a.m., Tuesday, August 13, 2019, Plymouth City Hall.
8. Grant Opportunities and Updates.
 - SCWM a. BWSR Clean Water Fund Competitive Grants.*
 - ✓ SC 1) Meadow Lake Grant Application.*
 - SC b. Bass and Pomerleau Lakes Alum Application – verbal update.
 - SC c. SRP Reduction Project.
9. Communications.
 - SCWM a. Communications Log.*
10. Other Business.
11. Adjournment.



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



MINUTES Regular Meeting June 13, 2019

(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, June 13, 2019, at Edinburgh, USA, 8700 Edinbrook Crossing, Brooklyn Park, MN.

Present for Shingle Creek were: David Vlasin, Brooklyn Center; John Roach, Brooklyn Park; Burton Orred, Jr., Crystal; Karen Jaeger, Maple Grove; Robert Grant, New Hope; Harold E. Johnson, Osseo; Andy Polzin, Plymouth; Wayne Sicora, Robbinsdale; Ed Matthiesen and Jeff Strom, Wenck Associates, Inc.; Troy Gilchrist, Kennedy & Graven; and Judie Anderson, JASS.

Not represented: Minneapolis.

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

Not represented: Brooklyn Park.

Also present were: Andrew Hogg, Brooklyn Center; Mitch Robinson, Brooklyn Park; Todd Tuominen, Champlin; Mark Ray, Crystal; Derek Asche, Maple Grove; Liz Stout, Minneapolis; Megan Hedstrom, Tyler Johnson (Stantec), and Jodi Taitt, New Hope; Ben Scharenbroich and Alex Larson, Plymouth; and Richard McCoy, Robbinsdale.

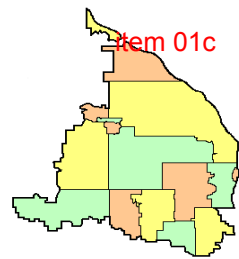
II. Agendas and Minutes.

Motion by Jaeger, second by Vlasin to approve the **Shingle Creek agenda**.* *Motion carried unanimously.*

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

Motion by Orred, second by Grant to approve the **minutes of the May regular and public meetings**.* *Motion carried unanimously.*

Motion by Butcher, second by Jaeger to approve the **minutes of the May regular and public meetings**.* *Motion carried unanimously.*



III. Finances and Reports.

A. Motion by Orred, second by Roach to approve the **Shingle Creek June Treasurer's Report.*** *Motion carried unanimously.*

Motion by Orred, second by Johnson to approve the **Shingle Creek June claims.*** Claims totaling \$101,659.70, including the claim from Meta Materia,* were *approved by roll call vote: ayes – Vlasin, Roach, Orred, Jaeger, Wills, Johnson, Polzin, and Sicora; nays – none; absent – Minneapolis.*

Motion by Orred, second by Sicora to accept the **2018 Audit Report.*** *Motion carried unanimously.*

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

Motion by Johnson, second by Butcher to approve the **West Mississippi June claims.*** Claims totaling \$18,868.52 were *approved by roll call vote: ayes – Vlasin, Butcher, Jaeger, and Johnson; nays – none; absent – Brooklyn Park.*

Motion by Johnson, second by Jaeger to accept the **2018 Audit Report.*** *Motion carried unanimously.*

IV. Open Forum.

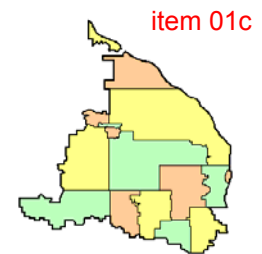
V. Project Reviews.

A. WM2019-003 610 Crossings 2nd Addition Regional Pond, Brooklyn Park.* Construction of approximately 960 linear feet of storm sewer, grading of a regional pond, and lowering of an existing culvert pipe. Construction of this stormwater infrastructure is in anticipation of development of the 18.56-acre site with up to 80% impervious. The site currently has no impervious area. The site is located in the northeast quadrant of Highway 610 and Zane Avenue. Following development, the site could have up to 14.85 acres of impervious area. The complete project review application was received on April 16, 2019.

To comply with the Commission's water quality treatment requirement, the site must provide removal of 85% total suspended solids and 60% total phosphorus. Infiltrating 1.3 inches of runoff is considered sufficient to provide this level of treatment, according to Commission rules. Runoff from the site is proposed to be routed to an infiltration basin in the southeast corner of the site. Impervious surface could consist of up to 640,174 SF, generating 69,352 CF of runoff during a 1.3-inch storm. The proposed infiltration basin has the capacity to infiltrate 75,988 CF, which is more than the required volume. Further, water is routed from the infiltration basin into a MnDOT NURP pond, which will provide additional treatment. 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 proposed to be routed to an infiltration basin in the southeast corner of the 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 could be up to 14.7 acres, requiring infiltration of 69,352 CF within 48 hours. The applicant proposes to route runoff to an infiltration basin in the southeast corner of the site that has the capacity to infiltrate the required volume within 48 hours. The applicant meets Commission volume control 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 floodplain on this site and there is at least five feet of freeboard between the infiltration basin's high-water level and the Highway 610 exit ramp. The applicant meets Commission floodplain requirements.

The erosion control plan includes a rock construction entrance, silt fence, rip rap at inlets, and native seed specified on the pond slopes. The erosion control plan meets Commission requirements.

A public hearing on the project was conducted on April 12, 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 Brooklyn Park was provided.

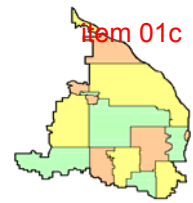
Motion by Butcher, second by Vlasin to advise the City of Brooklyn Park that Project Review WM2019-003 is approved with no conditions. *Motion carried unanimously.*

B. WM2019-004: TH169 & 101st Ave Interchange, Brooklyn Park.* The proposed project is the construction of a bridge across Trunk Highway (TH) 169; construction of entrance and exit ramps/loops; reconstruction of 101st Ave from Jefferson Highway to 2,000 feet east of TH 169. The project will also include land and shoulder widening on TH 169 to accommodate the proposed entrance and exit ramps and loops. The site is 39.9 acres. Following development, the site will be 32 percent impervious with 12.7 acres of impervious surface, an increase of 5.7 acres. The complete project review application was received on May 14, 2019.

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. Runoff from the site is proposed to be routed to several BMPs, including: (1) a wet detention basin and infiltration basin at the west end of the project (West Basin); (2) a wet detention basin and infiltration basin within the southbound TH 169 entrance loop (West Loop Basin); (3) a wet detention basin and infiltration basin within the northbound TH 169 entrance loop (East Loop Basin); (4) an infiltration basin adjacent to TH 169 between the northbound exit loop and northbound entrance ramp (East Infield Basin); (5) an infiltration basin adjacent to the northbound entrance ramp to the east (Northeast Infield Basin); (6) an infiltration swale along eastbound 101st Avenue; and (7) grass swales along northbound and southbound TH 169. 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 several BMPs that slow runoff rate. An XP-SWMM model was used to compare runoff rates at three drainage comparison points: the dual culverts under Highway 169, the weir at the northeast wetland, and the channel draining southeast from 101st Ave. Runoff is reduced from preexisting conditions to proposed conditions in all but one case, the 100-year event for the channel site. However, the rate increase is very small (6.25%), and it is not anticipated to have negative impacts. 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 5.7 acres, requiring infiltration of 0.475 acre-feet within 48 hours. The applicant proposes to route runoff to several BMPs that have the capacity to infiltrate



more than the required volume within 48 hours. The applicant meets Commission volume control requirements.

There are several wetlands on this site. The Commission is LGU for WCA administration in Brooklyn Park and the Commission approved a wetland delineation for these wetlands in August of 2018.

The applicant is proposing temporary and permanent impacts to these wetlands, but all impacts will be mitigated at 2:1 ratio through the purchase of wetland mitigation credits within the watershed. A Minnesota Wetland Conservation Act/U.S. Army Corps of Engineers Joint Application Form is currently being prepared in order to approve the proposed impacts and mitigation strategies, and this application will be submitted to the Commission once completed. In addition, wetland buffers with a minimum of 20 feet in width and averaging 30 feet in width are provided in almost all cases. The only place in which the buffer requirement is not met is where 101st Avenue bisects a wetland, so adding buffer would mean filling the wetland. To compensate for reduced buffer strip width, the applicant has sloped the sidewalk and trail along 101st Ave toward the roadway, rather than towards the wetland areas, so polluted runoff is not routed to the wetland. The applicant meets Commission wetland requirements.

One DNR public water wetland is located on the project site. The proposed project is not anticipated to negatively impact this wetland. The applicant meets Commission Public Waters requirements. There is no floodplain on this site. The low floor elevations of nearby buildings are at least two feet higher than the high-water elevation of the detention ponds/infiltration basins according to Atlas 14 precipitation. The applicant meets Commission floodplain requirements.

The erosion control plan includes silt fence/biolog along the perimeter of the disturbed area, silt fence/biolog surrounding basins, inlet protection, native seed on pond slopes, and rip rap at inlets. The erosion control plan meets Commission requirements.

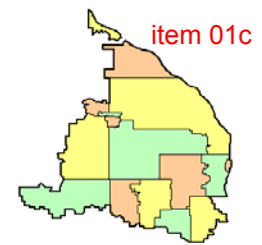
A public hearing on the project was conducted on April 22, 2019 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.

Motion by Jaeger, second by Butcher to advise the City of Brooklyn Park that Project Review WM2019-004 is approved with no conditions. *Motion carried unanimously.*

VI. Watershed Management Plan.*

A. The Shingle Creek Commission has received a Cost-Share Program application for an **Underground Storm Water System for the New Hope Civic Center Park.*** The City is proposing an underground stormwater retention and treatment tank for the west portion of the site, adjacent to the proposed theater and skate park. The inline tank will treat runoff from a 7.4-acre area comprised of Zealand Avenue and surrounding residential areas that drain to the project site. The project cost is estimated to be \$108,000; the City is requesting \$50,000 cost-share from the Commission. It is Staff's recommendation that \$25,000 of that amount be taken from the Cost-Share Program and the other \$25,000 be taken from the BWSR Watershed-based Funding Grant. At their May 30, 2019 meeting, the Technical Advisory Committee (TAC) voted to recommend to the Commission approval of this project based on Staff's recommendations.

Motion by Orred, second by Jaeger to approve this project according to the TAC's recommendation. *Motion carried unanimously.*



B. Meadow and Magda Lakes TMDL 5-Year Review.*

1. Staff has completed a draft of the 5-Year Review for these lakes. Both lakes are small, shallow “neighborhood” lakes with small lakesheds and were designated Impaired Waters for excess nutrients in 2002. TMDLs were completed for these lakes in 2010.

Lake Magda outlets to Eagle Creek through storm sewer, while Meadow Lake outlets to Bass Creek through storm sewer. Since 2010 Staff have collected additional water quality, aquatic vegetation, fish, and sediment core data, and have updated the P8 and lake response models to include BMPs completed since that time. Staff’s June 7, 2019 memo provides an overview of that report and recommendations for the coming ten years. Strom presented highlights from the report and answered Commissioner questions.

Motion by Sicora, second by Vlasin to accept the report. *Motion carried unanimously.*

2. In its May 22, 2019 letter,* the City of New Hope is requesting the Commission to develop a **lake management plan for Meadow Lake** and to apply for a Clean Water Fund grant to assist in the funding of a potential drawdown and alum treatment for the lake. Estimated cost to develop the management plan is \$150,000 - \$200,000. At their May meeting, the Technical Advisory Committee (TAC) voted to recommend to the Commission approval of this request based on Staff’s recommendations.

Motion by Grant, second by Sicora to approve the TAC’s recommendation. *Motion carried unanimously.* The project will be added to the CIP to make it eligible for grant funding.

VII. Water Quality.

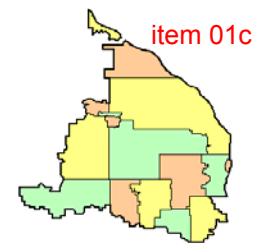
A. Cedar Island Lake Subwatershed Assessment.* The City of Maple Grove has requested that the Commission share in the cost of a subwatershed assessment (SWA) for Cedar Island Lake and its drainage area similar to one previously approved and undertaken for the Maple Grove portion of the Pike Lake drainage area. In addition to BMPs identified in the watershed, the SWA would incorporate lake management activities completed by both the Commission and the City as well as the findings of the TMDL and TMDL Five-year Review. The City has requested cost share up to \$15,000. This was discussed at the May 30, 2019 TAC meeting and the TAC recommended approval of the request.

The Commission maintains a segregated account to conduct SWAs. Assuming Maple Grove begins the work this summer or fall and requests funds in 2020, the account balance will be adequate to fund the current request.

Motion by Roach, second by Orred to approve this request. *Motion carried unanimously.*

B. Minnesota Statewide Chloride Management Plan (CMP). Shingle Creek was the first water in the State to be declared an Impaired Water for excess chloride concentrations. The cities, county, state, and other parties in the watershed have been working diligently to reduce road salt application, the primary source of this chloride. Chloride has since been identified as an issue of statewide concern, and the Statewide CMP was recently released for public review and comment. Staff’s June 12, 2019 memo* summarizes the report and its findings.

The MPCA’s goal is to spread education about chloride impairment, effect widespread implementation of chloride reduction BMPs, and improve policy to reflect chloride reduction goals. Throughout this timeline, the MPCA will continue to monitor water quality changes and the implementation of BMPs to determine whether the TCMA and Statewide CMPs were effective, and revise plans accordingly.



The MPCA has provided guidelines for BMPs for winter management activities, including the Smart Salting Assessment Tool, as well as guidelines for water softening BMPs, and guidelines for monitoring water quality. These can be accessed from the MPCA webpage for [Statewide Chloride Resources](#). The MPCA will also continue to work with stakeholders, work to inform the public about the environmental impacts of chloride, and engage communities in implementing BMPs.

C. The next **Technical Advisory Committee (TAC) meeting** has been scheduled for 8:30 a.m., Friday, June 21, 2019, at Crystal City Hall. The May 30 TAC meeting minutes* are included in the meeting packet for informational purposes.

IX. Education and Public Outreach.*

A. **Watershed PREP and Education and Outreach Events.** Educators have completed spring classroom visits. The educators are available to table at city and school events -- contact Amy Juntunen at amy@jass.biz. The educators are investigating putting together a short, 3-5 minute 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 will be recorded in a classroom with students to show one of the hands-on learning activities that are part of the curriculum. They will work either with willing and available city communications staff or with local cable access to record and edit the video.

B. **Website.** The group will be reviewing the West Metro Water Alliance (WMWA) website to refresh and update content. Any input is appreciated. westmetrowateralliance.org/

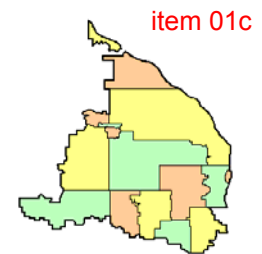
C. **Ten Things Brochure.** The brochure has been completed and printed and we have received about 10,000 copies printed at no charge by Hennepin County. The brochure can be found at: shinglecreek.org/uploads/5/7/7/6/57762663/2019_ten_things_final.pdf. Copies can be requested from the administrative office. Brochures will also be distributed to member cities through their TAC representatives.

D. **Special Project Discussion.** Each year the four watersheds budget \$8,000 to undertake a larger project. The group continues to discuss purchasing a copy of the Blue Thumb native plant root puller display, which is extremely popular among both adults and youth. The nonprofit Blue Thumb has these custom displays made for about \$3,500. The displays educate users about one of the many features of native plants and their root lengths compared to turf grass and ornamental plants. This makes them ideal for stabilizing streambanks and lakeshores and for promoting infiltration by creating deep root channels. The display allows the user to pull out a string that is as long as the roots are deep. The strings are spring-wound, which then automatically retracts the strings back into the display. The display can be used at booths and city events, and it was suggested that it could also be a movable display, set up at city halls or community centers for a few weeks rotating amongst cities. It would help support the Pledge to Plant campaign as well. The wooden display is very heavy and has been undergoing several redesigns to improve portability. WMWA is still researching the best option.

Blue Thumb is a valuable source of information, including educational materials, how-to guides, a plant finder tool, and more. <http://www.blue-thumb.org/public-resources/>

E. **Website/Social Media.** The website Google Analytics for April-May 2019, along with the Facebook insights for the last 28 days for both Shingle Creek and WMWA and the WMWA Twitter metrics, are included in Staff's June 12, 2019 memo. A Facebook *Reach* is the number of times a post was viewed in a feed, *Engagement* is an action – a click, comment, share, or reaction.

F. The **next WMWA meeting** is scheduled for 8:30 a.m., Tuesday, July 9, 2019, at Plymouth City Hall.



IX. Grant Opportunities and Updates. The Commissioners received updates* on the following:

A. Twin Lake Carp removal. Staff accompanied the DNR in the aquatic vegetation survey and determined that because of the snowy and otherwise harsh winter there was a die-back of curly-leaf pondweed. The amount present in the lake did not require treatment this year. Commission and Robbinsdale staff removed carp from Ryan Creek just upstream of the new fish barrier four times in May. An estimated 3800 pounds of biomass was removed at a cost of about \$5,000. At this point about half the total estimated biomass of carp in the system has been removed, or about 44% of the goal of removing about 33,000 pounds of carp. Lake water quality is also being monitored this season. The grant portion of this project ends August 31, 2019. Unspent levy funds will be retained in a segregated account to pay for future aquatic vegetation management and carp removals.

B. Bass and Pomerleau Lakes Alum application. The first dose of the alum applications occurred the week of May 13, 2019. All went smoothly and both lakes were treated that week. Cable 12, CCX Media, did a short report on the project <https://ccxmedia.org/news/water-treatment-project-begins-on-two-plymouth-lakes/>.

The DNR was on Bass Lake observing the treatment and undertaking a curly-leaf pondweed delineation with Commission staff. They delineated a 20.4-acre area for treatment, which occurred on May 23, 2019. Chair Polzin authorized going forward with the treatment, which was done by Lake Management, Inc. Their invoice for \$6,752.40 was included in the meeting packet.

X. Communications.

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

B. Liability Insurance Coverage.*

Motion by Orred, second by Jaeger to NOT waive statutory tort limits for individual claimants. Motion carried unanimously.

Motion by Butcher, second by Jaeger to NOT waive statutory tort limits for individual claimants. Motion carried unanimously.

XI. Other Business.

The terms of representatives from Champlin and Minneapolis expired January 31, 2019. Staff have not received updated appointments as of this date.

XII. Adjournment. There being no further business before the Commissions, the meetings were adjourned at 2:03 p.m.

Respectfully submitted,

Judie A. Anderson
Recording Secretary/JAA:tim

Z:\Shingle Creek\Meetings\Meetings 2019\06 Regular Meeting Minutes.doc

June 27, 2019

SHINGLE CREEK WATERSHED MANAGEMENT COMMISSION**PROJECT REVIEW SC2019-009: Lake Road Apartments**

Owner: 4 West Capital Development LLC
Company: 4600 Lake Road
Address: Robbinsdale, MN 55422

Engineer: David Knaeble
Company: Civil Site Group
Address: 4931 W 35th Street #200
Phone: 612-615-0060
Email: dknaeble@civilsitegroup.com

Purpose: Demolition of existing building and construction of new apartment building with parking lot on 3.95 acres.

Location: 4600 Lake Road, Robbinsdale, MN 55422 (Figure 1).

- Exhibits:**
1. Project review application and project review fee of \$1,700, dated 5/28/19, received 5/29/19.
 2. Site plan, preliminary plat, grading (Figure 2), utility, erosion control, and landscaping plans dated 5/28/19, received 5/29/19.
 3. Hydrologic calculations by Civil Site Group, dated 5/21/19, received 5/29/19.

- Findings:**
1. The proposed project is the demolition of an existing building and the construction of a new apartment building and associated parking lot. The site is 3.95 acres. Following development, the site will be 50.6 percent impervious with 2.0 acres of impervious surface, an increase of 0.7 acres.
 2. The complete project application was received on 5/29/19. To comply with the 60-day review requirement, the Commission must approve or deny this project no later than the 7/11/19 meeting. Sixty calendar-days expires on 7/29/19.
 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 apartments and southern portion of parking lot is proposed to be routed to an underground iron-enhanced sand filtration basin. Before entering the filtration basin, the water will pass through a 4' sump with a SAFL Baffle insert to provide pretreatment. Additionally, once in the basin, a drawdown riser will provide additional TSS removal. The runoff will then percolate 98 horizontal feet through the filter before exiting the basin. Runoff from the northern portion of the parking lot is proposed to be routed through a treatment filter manhole (outfitted with a Kraken membrane filter to remove 85% TSS and 72% at 0.45 cfs)

SC2019-009: Lake Road Apartments

before joining with the water exiting the filtration basin. Both subcatchments will ultimately drain to Lower Twin Lake, which is adjacent to the property. Runoff from the pool, patio, and lakeside trails is proposed to be treated via overland flow over amended topsoil before draining directly into the lake. A small amount of runoff from the eastern side of the site (subcatchment is 0.004 acres and is not proposed to be affected by construction) will be treated via overland flow and then drain to the adjacent property to the east. 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. The majority of runoff (runoff from 1.66 acres of impervious surface, including the apartment buildings and the central parking lots) will be routed to an underground iron-enhanced sand filtration basin, which reduces runoff rates. 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	5.39	2.24	12.29	8.15	29.84	27.30

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 2.0 acres, requiring infiltration of 7,260 cubic feet within 48 hours. However, the high seasonal groundwater elevation onsite makes 3 feet of separation between an infiltration practice and groundwater impossible, so filtration of 7,260 cubic feet is instead required. The applicant proposes to route runoff to an underground filtration basin and a treatment filter manhole that have the capacity to filtrate the required volume within 48 hours. The applicant meets Commission volume control requirements.
5. A wetland site investigation was performed on site on 4/19/19, and the boundaries of two wetlands were delineated (Figure 3). The Commission is LGU for WCA administration in Robbinsdale and approved this delineation on 5/30/19 (after boundary revision). Wetland buffers a minimum of 20 feet in width and averaging 30 feet in width are provided, although a firepit and gravel path are proposed inside the buffer. The applicant meets Commission wetland requirements.
6. Lower Twin Lake is a DNR Public Water on the southern edge of this site. Until recently, this lake exceeded state eutrophication standards and was on Minnesota's list of impaired waters. However, in 2014 the lake was delisted due to improved water quality. The proposed project is not anticipated to cause changes to the water quality on Lower Twin Lake. The applicant meets Commission Public Waters requirements.
7. There is FEMA 100-year floodplain on the southern edge of this site, adjacent to Lower Twin Lake. The applicant proposes 197.3 cubic yards of floodplain fill on the site and 266.8 cubic yards of floodplain cut on the site for a net increase of 69.5 cubic yards of floodplain. This is illustrated in Figure 4. The low floor elevation of the proposed building is 857.2 which is at least one foot higher than the FEMA 100-year

SC2019-009: Lake Road Apartments

floodplain elevation of 856.1. The flood plain cut is placed adjacent to an existing building offsite, however, the building has a low floor elevation of 857.8 which is greater than one foot higher than the FEMA 100-year floodplain elevation. The applicant meets Commission floodplain requirements.

8. The erosion control plan includes a rock construction entrance, perimeter silt fence/biolog, silt fence surrounding detention ponds/infiltration basins, inlet protection, rip rap at inlets, slope checks, erosion blankets provided on steep slopes, double row silt fence/biology surrounding wetlands and the lake, and native seed specified on the pond slopes. The erosion control plan meets Commission requirements.
9. A public hearing on the project will be conducted on 7/18/19 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.
10. A draft Operations & Maintenance (O&M) agreement between the applicant and the City of Robbinsdale was provided.
11. A Project Review Fee of \$1,700 has been received.

Recommendation: Recommend approval subject to the following conditions:

1. Provide a completed O&M agreement between the applicant and the City of Brooklyn Park for all stormwater facilities on the project site. (A draft agreement was provided with this application.)

Wenck Associates, Inc.
Engineers for the Commission

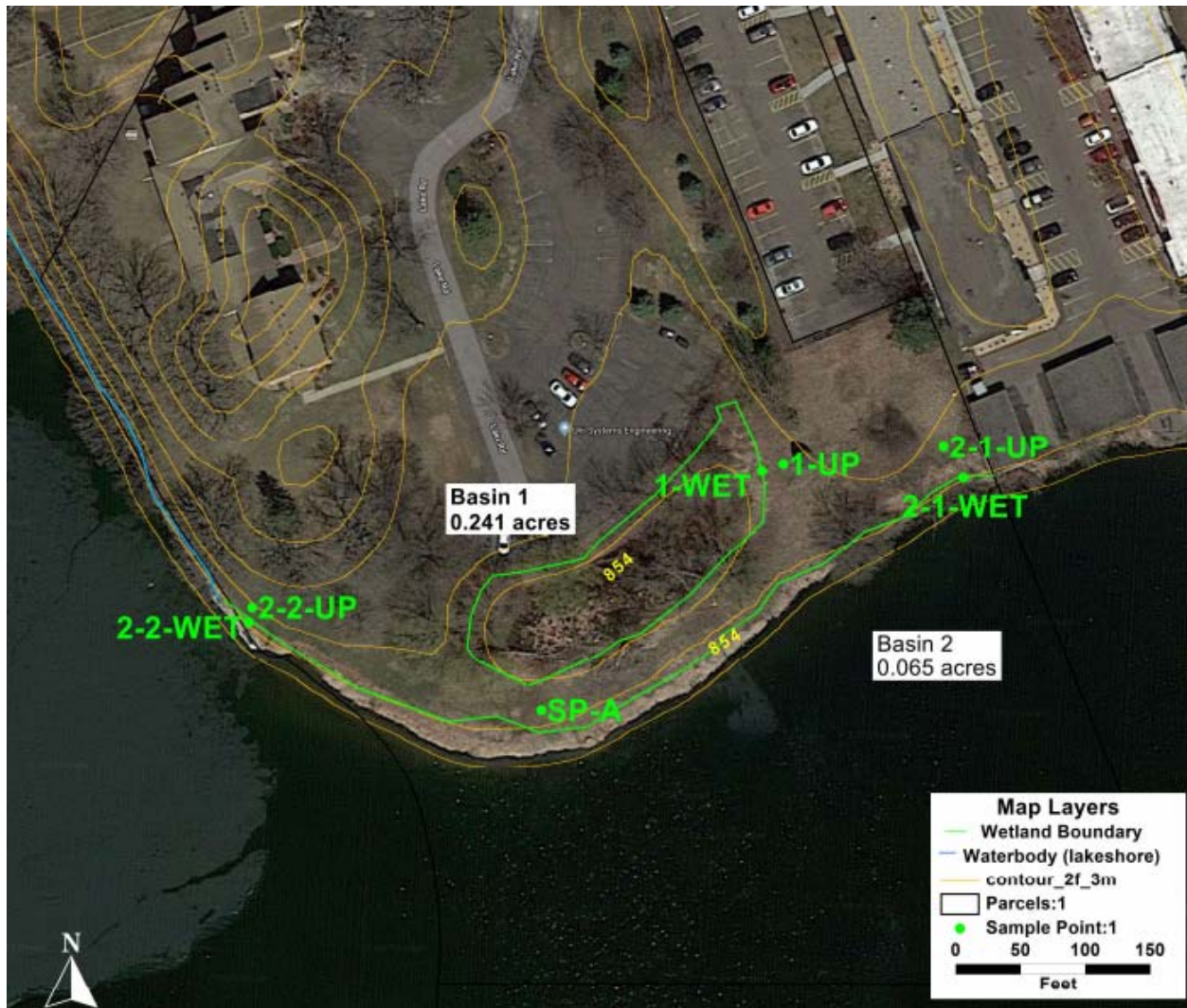
Ed Matthiesen, P.E.

Date

SC2019-009: Lake Road Apartments

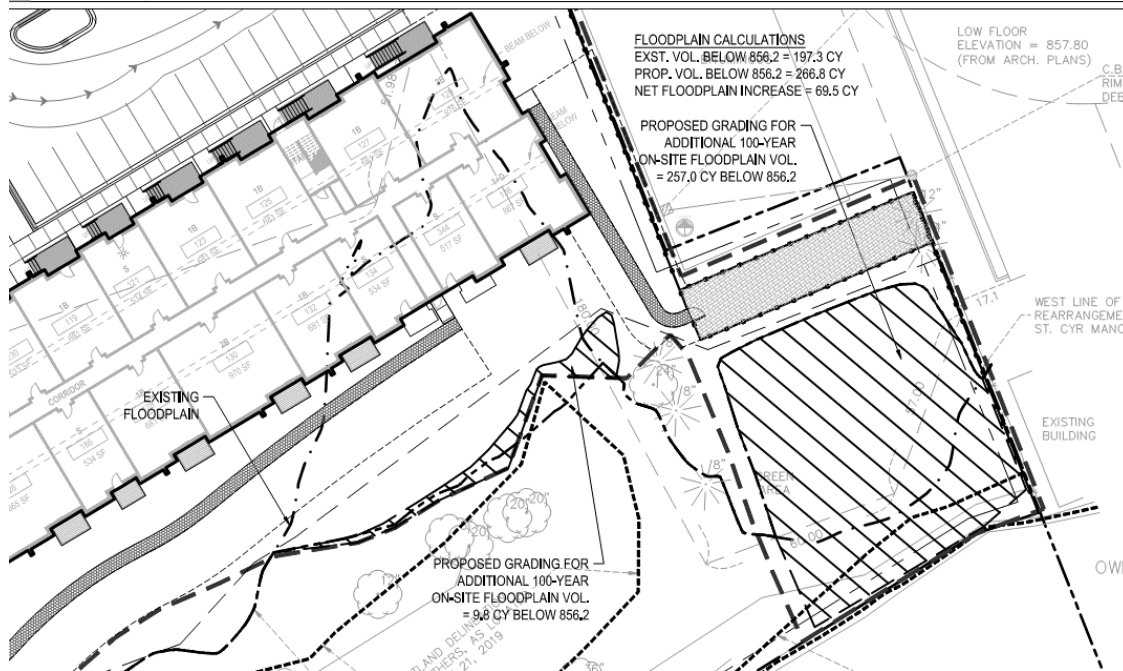
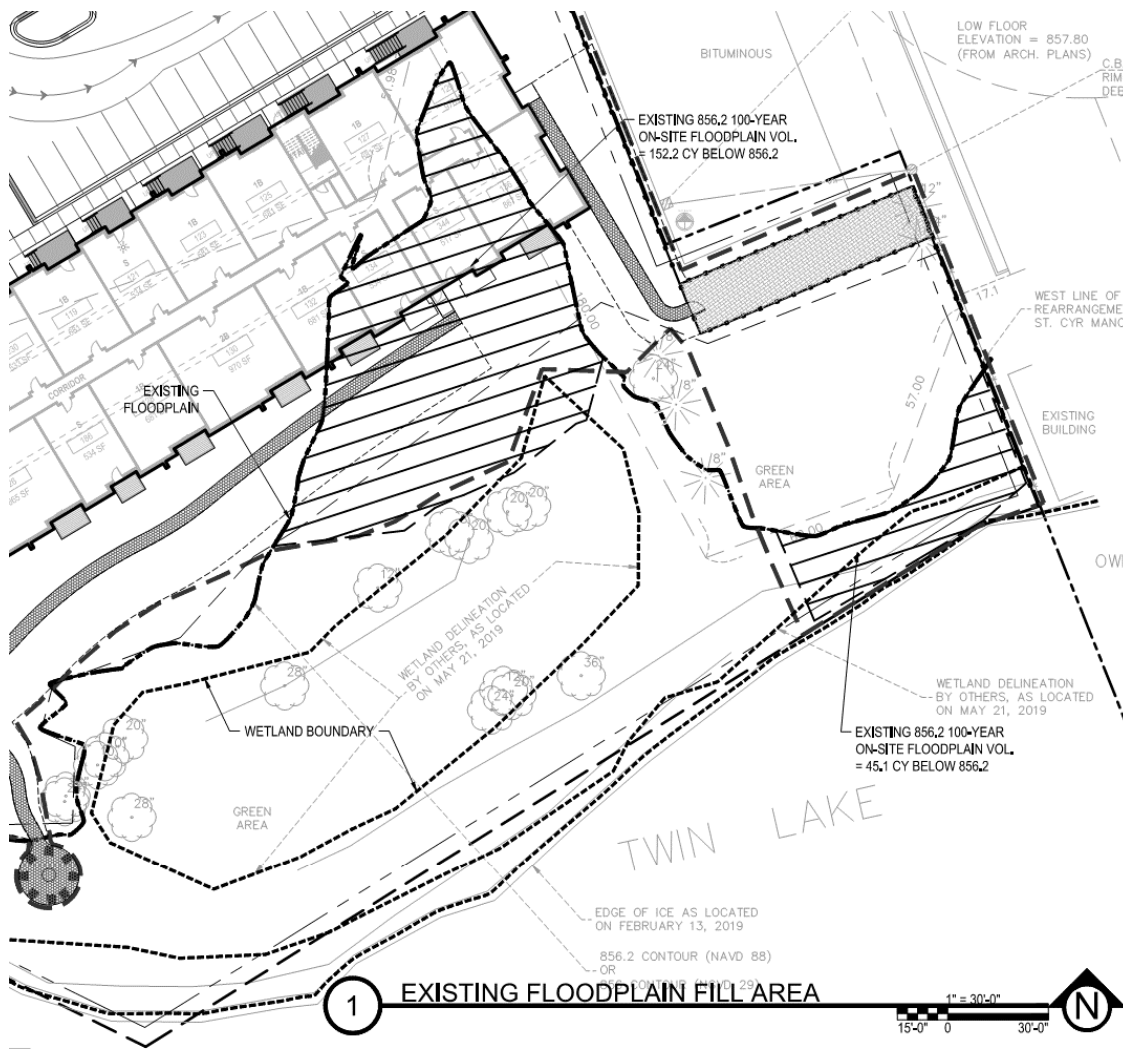
SC2019-009: Lake Road Apartments

Figure 3. The two delineated wetlands on site, including Lower Twin Lake.



SC2019-009: Lake Road Apartments

Figure 4. The proposed floodplain fill and cut on site.



June 27, 2019

WEST MISSISSIPPI WATERSHED MANAGEMENT COMMISSION**PROJECT REVIEW WM2019-005: Data Recognition Center Addition**

Owner: Data Recognition Corp
Company: 13490 Bass Lake Road
Address: Maple Grove, MN 55311

Engineer: Dave Knaeble
Company: Civil Site Group
Address: 4931 W 35th Street #200
 St. Louis Park, MN 55416
Phone: 612-614-0060
Email: dknaeble@civilsitegroup.com

Purpose: Demolition of existing parking lot and construction of building addition and parking on 10.7 acres.

Location: 8900 Wyoming Avenue, Brooklyn Park, MN (Figure 1).

- Exhibits:**
1. Project review application and project review fee of \$2,200, dated 6/5/19, received 6/11/19.
 2. Site plan, preliminary plat, grading (Figure 2), utility, erosion control, and landscaping plans dated 6/11/19, received 6/11/19.
 3. Hydrologic calculations by Civil Site Group, dated 5/31/19, received 6/11/19.

- Findings:**
1. The proposed project is the demolition of an existing parking lot and the construction of a building addition and new parking lot. The site is 10.7 acres. Following development, the site will be 49.3 percent impervious with 5.3 acres of impervious surface, an increase of 1.5 acres.
 2. The complete project application was received on 6/11/19. To comply with the 60-day review requirement, the Commission must approve or deny this project no later than the 8/8/19 meeting. Sixty calendar-days expires on 8/10/19.
 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 new parking lot and building (3.0 ac impervious surface on a 4.1 ac drainage area) is proposed to be routed to an infiltration basin in the northern portion of the site, which has the capacity to infiltrate 1.3 inches of runoff. Pretreatment for the infiltration basin will be provided by a sump with 6' depth and 6' diameter and a SAFL Baffle insert. Because the site is located in the high-risk area of a DWSMA (Figure 3), the applicant proposes to place into the infiltration basin 24 inches of a 20% organic and 80% sand soil mix. This will provide adequate water filtration prior to infiltration. The infiltration basin then

WM 2019-005: Data Recognition Center Addition

drains into the pond to the east of the site, which will provide additional water quality benefit. 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 new 3.0 acres of impervious surface is proposed to be routed to an infiltration basin. Runoff from the basin will then be routed to a pond to the east of the site in the northern portion of the site. Runoff from the existing parking lot and building will be routed off site to Wyoming Ave without treatment. Runoff from the southern subcatchment will be routed south offsite to 89th Ave without treatment. Runoff from the northern subcatchment will be routed north offsite to an existing low area. 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-
Total Drainage	6.38	0.26	11.43	3.04	22.80	10.26

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 3.0 acres, requiring infiltration of 10,890 cubic feet within 48 hours. The applicant proposes to route runoff to an infiltration basin that has the capacity to infiltrate the provided volume within 48 hours. The applicant meets Commission volume control requirements.
5. The National Wetlands Inventory and the Hennepin County Wetlands Inventory identify multiple probable wetlands on the property. However, the construction limits do not overlap with these probable wetlands. The applicant meets Commission wetland requirements.
6. There are no Public Waters on this site. The applicant meets Commission Public Waters requirements.
7. There is no 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.
8. The erosion control plan includes rock construction entrances, perimeter silt fence, silt fence surrounding infiltration basins, inlet protection, rip rap at inlets, and native seed specified on the pond slopes. The erosion control plan meets Commission requirements.
9. In an email to Mitch Robinson (6/27/2019), it was shown that a public hearing on the project is not required as the site is in a non-residential area. The applicant meets Commission public notice requirements.
10. A draft Operations & Maintenance (O&M) agreement between the applicant and the City of Brooklyn Park was provided.

WM 2019-005: Data Recognition Center Addition

11. A Project Review Fee of \$2,200 has been received.

Recommendation: Recommend approval subject to the following conditions:

1. Perform post-construction double ring infiltrometer test to verify 0.45 in/hr infiltration rate of basin.
2. Provide a completed O&M agreement between the applicant and the City of Brooklyn Park for all stormwater facilities on the project site. (A draft agreement was provided with this application.)

Wenck Associates, Inc.
Engineers for the Commission

Ed Matthiesen, P.E.

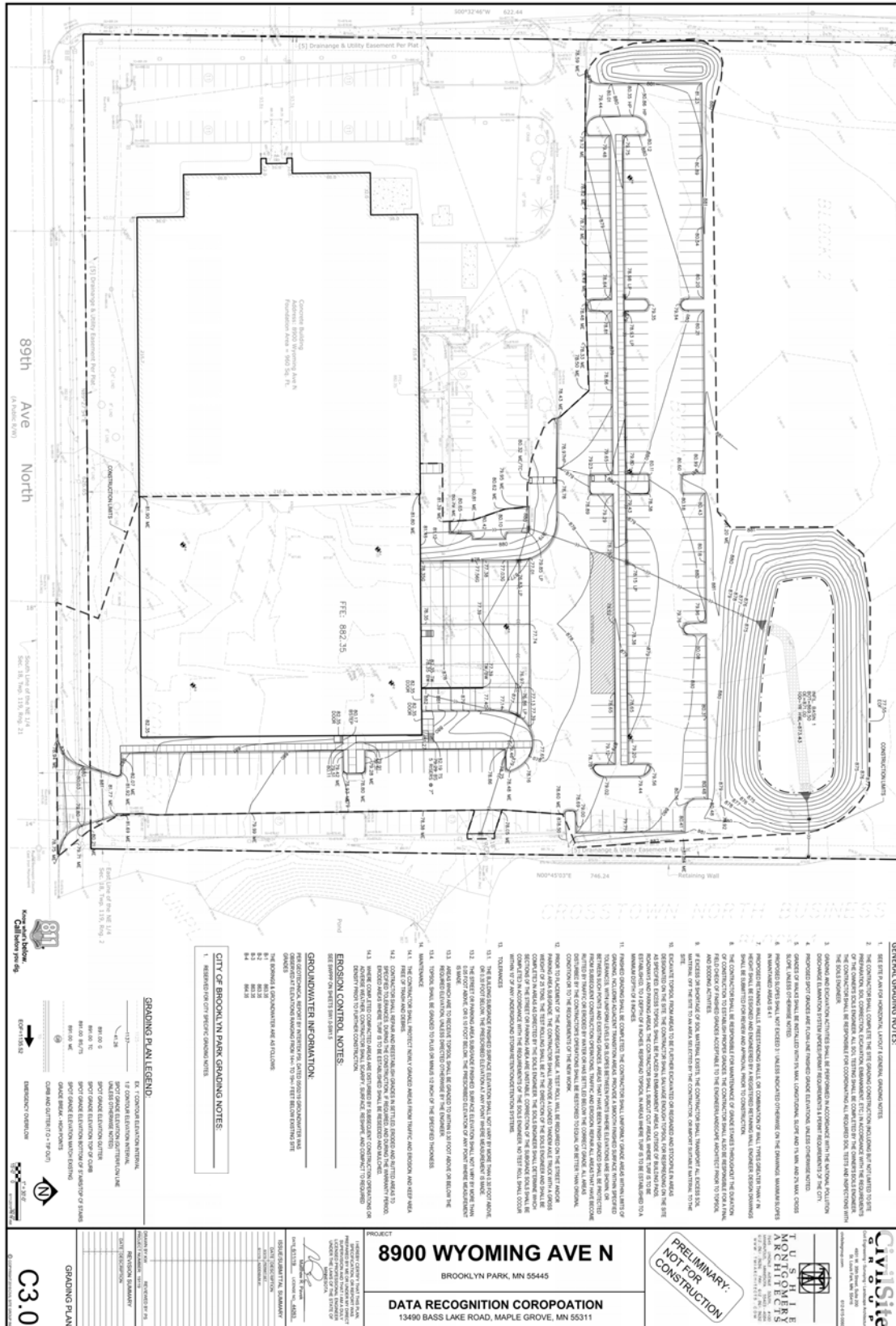
Date

Figure 1. Site location.



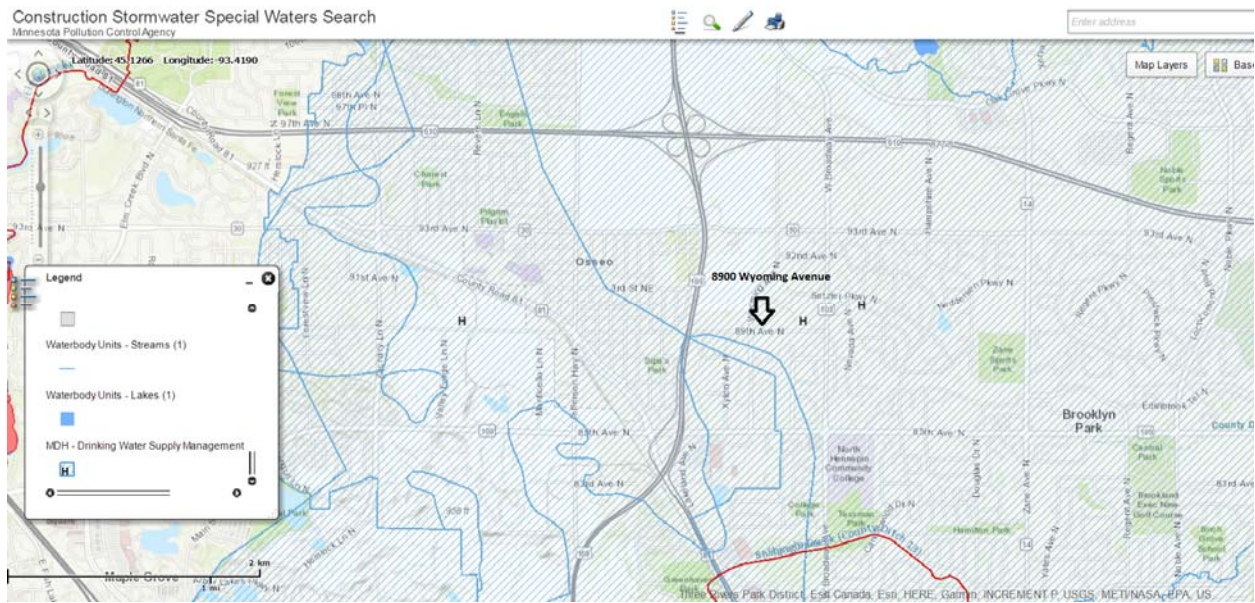
WM 2019-005: Data Recognition Center Addition

Figure 2. Site grading/drainage plan.



WM 2019-005: Data Recognition Center Addition

Figure 3. MPCA DWSMA Vulnerability Map.





Responsive partner.
Exceptional outcomes.

Technical Memo

To: Shingle Creek/West Mississippi WMO Commissioners

From: Ed Matthiesen, P.E.
Diane Spector

Date: July 3, 2019

Subject: Proposed Minor Plan Amendment

Recommended Commission Action

Staff recommends that each Commission authorize proceeding with the attached minor plan amendment and set the date for the public meeting as August 8, 2019 regular meeting.

The Commissions and the Technical Advisory Committee (TAC) have been in ongoing discussions regarding two possible amendments to the Watershed Management Plan and CIP. The first amendment would revise the CIP cost sharing policy to include funding nonstructural Best Management Practices (BMPs) such as upgrading to regenerative air street sweepers. The second would be to specify that the 2020 generic Lake Internal Load project on the CIP will be the Meadow Lake Management Plan. A proposed Minor Plan Amendment is attached for consideration. This had previously been provided to the Commissions' attorney, BWSR, and Hennepin County. As of this writing no comments have been received from those parties. Assuming there are no objections from them, staff recommends proceeding with the Minor Plan Amendment process by setting August 8, 2019 as the public meeting at which the amendment will be heard and making the appropriate notifications.

Cost Share Policy for Capital Improvements

The attached Cost Share Policy for Capital Improvements is a new document, but much of the proposed policy is already in place in memos and guidance documents and is how the Commissions have been operating to date. This is the first time those operating policies have been gathered into a formal policy. What is new is most of the second paragraph under Capital Improvements, and the effectiveness monitoring requirements in the guidelines section. The proposed Minor Plan amendment would modify the plan simply to state that the Commissions will implement the CIP using the Cost Share Policy.

Meadow Lake Management Plan

As the Commissions have done several times now, the second part of the Minor Plan Amendment would add specificity to the generic 2020 Lake Internal Load project would be the proposed Meadow Lake Management Plan. While the levy for this project could not be certified until 2021, revising the CIP now will be beneficial for the Clean Water Fund grant application.

**Notice of Minor Plan Amendment
Shingle Creek and West Mississippi Watershed Management Commissions**

The Shingle Creek and West Mississippi Watershed Management Commissions propose to amend their joint *Third Generation Watershed Management Plan* to adopt a revision to the Plan and to the Capital Improvement Program (CIP). This revision revises capital project cost share policies and specifies the location of one project on the Shingle Creek CIP.

The proposed minor plan revision is shown as additions (underlined) or deletions (~~strike-outs~~).

Section 4.3.7 and Appendix F of the Shingle Creek WMC Third Generation Plan are hereby revised as follows:

Option 1 - Cost Share Policy. For capital ~~projects~~ improvements that have been identified in a Commission-adopted or approved TMDL or management plan or as approved by the Commissions for cost participation in accordance with the Commissions' Cost Share Policy for Capital Improvements. ~~Projects~~ Improvements constructed to meet Commission development or redevelopment requirements are not eligible for cost participation.

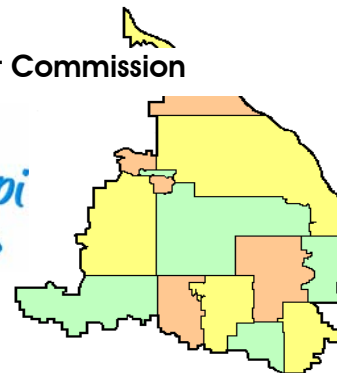
1. The Commission's share will be 25 percent of the final cost of the ~~project~~ improvement, with a minimum share of ~~\$25,000~~ 50,000.

Table 4.5. Shingle Creek WMC Third Generation Plan Implementation Plan is hereby revised as follows:

Action	2018	2019	2020	2021	2022
Lake Internal Load Improvement Project			200,000		200,000
-Commission Contribution			200,000		200,000
-Local Contribution			0		0
<u>Meadow Lake Management Plan</u>			<u>300,000</u>		
- <u>Commission Contribution</u>			<u>300,000</u>		
- <u>Local Contribution</u>			<u>0</u>		



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



Shingle Creek and West Mississippi Watershed Management Commissions Cost Share Policy for Capital Improvements D R A F T 6/25/19

The Shingle Creek and West Mississippi Watershed Management Commissions share the cost of watershed-priority capital improvements and demonstration projects through the Commissions' Capital Improvements Program (CIP). High-priority watershed capital improvements are those activities that go above and beyond general or routine city management activities to provide a significant improvement to the water resources in the watershed. This Cost Share Policy establishes the basis for and amount of Commission contribution to qualifying projects.

Capital Improvements

High priority activities that result in Wasteload Allocation reductions toward a TMDL, help solve a regional flooding problem, or are otherwise determined by the Technical Advisory Committee (TAC) and Commissions to be high priority are eligible to receive up to 25 percent of the final improvement cost in Commission cost-share, funded by the county ad valorem tax levied on all property in the watershed. The balance of the improvement cost, less any grant or other funds received, must be funded by the local government(s) participating in or benefiting from the improvement. *The Commissions' minimum share is \$50,000. There is no maximum share; the maximum is limited by the amount the Commission is willing/able to certify as a levy.*

Eligible improvements include both structural and nonstructural activities. Routine maintenance or localized improvements are not eligible for cost share. Thus, a local street flooding issue is not of watershed priority, but a local flooding issue that creates significant erosion and sedimentation impacting a downstream resource may be a watershed priority. Capital equipment that has been demonstrated to reduce loading of TMDL pollutants such as TP, TSS, or chloride, may be eligible if: 1) the equipment is new or an upgrade and not simply a replacement of existing equipment; 2) the equipment is to allow the member city to undertake a new or expanded load-reducing activity; and 3) use of the equipment for this load reductions must be supported by academic or governmental research. Examples of equipment purchase that may be eligible include equipment to begin or expand pre-wetting or anti-icing, or adding or upgrading to a regenerative air street sweeper. Only the incremental cost of such an upgrade would be eligible for cost share.

The Commissions have developed a set of criteria by which proposed activities may be scored, with only those that pass screening questions advancing to a prioritization stage by the Technical Advisory Committee (TAC). Prioritization will be based on cost effectiveness, amount of improvement achieved, and regional significance.

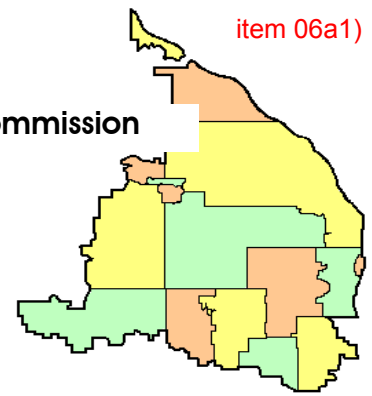
Activities of Watershed-Wide Benefit

The capital cost of activities addressing TMDL Load Allocation reductions and projects of watershed-side benefit may be funded 100 percent by the ad valorem tax levy. These types of activities include but are limited to:

- Lake Internal Load Reduction Actions
 - Alum treatments
 - Rough fish management
 - With Hennepin County and DNR concurrence, initial, whole-lake invasive aquatic vegetation management treatments performed for water quality, excluding those for recreation, aesthetics, or navigation
- Stream Internal Load Reduction Activities
 - Channel narrowing or creation of a low-flow channel to reduce sediment oxygen demand
 - Projects to increase DO at wetland outlets
- Non-TMDL Parameters (actions required by TMDLs not associated with a pollutant for which a numerical reduction of improvement can be specified)
 - Restoration or enhancement of in-stream habitat
 - Increases in channel roughness to enhance DO
 - Removal or bypass of barriers to connectivity
 - Streambank restoration below the top of the bank
- Other Watershed Benefiting Improvements as Recommended by the TAC

Guidelines

1. Capital improvements must be for water quality or ecological integrity improvement, and must be for improvement above and beyond what would be required to meet Commission rules or common practice. Only the cost of “upsizing” a BMP above and beyond is eligible.
2. Preexisting routine maintenance activities are not eligible.
3. The effectiveness of any proposed nonstructural improvements must be supported by literature or academic/practitioner experience and documentation.
4. The applicant must agree to document the effectiveness of any proposed nonstructural improvements and report those results to the Commissions for at least five years.
5. The standard Commission/Member Cooperative Agreement will be executed prior to BMP implementation. This Agreement will specify the type and adequacy of effectiveness reporting.



MINUTES
June 21, 2019

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 8:31 a.m., Friday, June 21, 2019, at Crystal City Hall, 4141 Douglas Drive North, Crystal, MN.

Present were: Mitchell Robinson, Brooklyn Park; Todd Tuominen, Champlin; Mark Ray, Crystal; Derek Asche, Maple Grove; Ben Scharenbroich, Plymouth; Richard McCoy, Robbinsdale; Ed Matthiesen and Diane Spector, Wenck Associates, Inc.; and Judie Anderson, JASS.

Also present: Alex Larson and Katerina Meybaum, Plymouth; and Marta Roser, Robbinsdale.

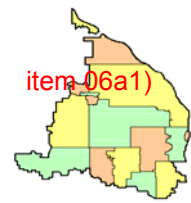
Not represented: Brooklyn Center, Minneapolis, New Hope, and Osseo.

- I. Motion by Ray, second by Asche to **approve the agenda.*** *Motion carried unanimously.*
- II. Motion by Ray, second by Asche to **approve the minutes***of the May 30, 2019 meeting. *Motion carried unanimously.*
- III. **Proposed Minor Plan Amendment for Capital Equipment.** The Shingle Creek and West Mississippi Watershed Management Commissions share the cost of watershed-priority capital improvements and demonstration projects through the Commissions' Capital Improvements Program (CIP). High-priority watershed capital improvements are those activities that go above and beyond general or routine city management activities to provide a significant improvement to the water resources in the watershed. The draft Cost Share Policy* presented by Staff establishes the basis for and amount of Commission contribution to qualifying projects.

A. Capital Improvements.

High priority activities that result in Wasteload Allocation reductions toward a TMDL, help solve a regional flooding problem, or are otherwise determined by the Technical Advisory Committee (TAC) and Commissions to be high priority are eligible to receive up to 25 percent of the final improvement cost in Commission cost-share, funded by the county ad valorem tax levied on all property in the watershed. The balance of the improvement cost, less any grant or other funds received, must be funded by the local government(s) participating in or benefiting from the improvement. *The Commissions' minimum share is \$50,000. There is no maximum share; the maximum is limited by the amount the Commission is willing/able to certify as a levy.*

Eligible improvements include both structural and nonstructural activities. Routine maintenance or localized improvements are not eligible for cost share. Capital equipment that has been demonstrated to reduce loading of TMDL pollutants such as TP, TSS, or chloride may be eligible if: 1) the equipment is new or an upgrade and not simply a replacement of existing equipment; 2) the equipment is to allow the member city to undertake a new load-reducing activity; and 3) use of the equipment for this load reductions must be supported by academic or governmental research. Only the incremental cost of such upgrades would be eligible for cost share.



B. Activities of Watershed-Wide Benefit.

The capital cost of activities addressing TMDL Load Allocation reductions and projects of watershed-side benefit may be funded 100 percent by the ad valorem tax levy. Examples of these types of activities include:

1. Lake Internal Load Reduction Actions
 - a. Alum treatments
 - b. Rough fish management
 - c. With Hennepin County and DNR concurrence, initial, whole-lake invasive aquatic vegetation management treatments performed for water quality, excluding those for recreation, aesthetics, or navigation
2. Stream Internal Load Reduction Activities
 - a. Channel narrowing or creation of a low-flow channel to reduce sediment oxygen demand
 - b. Projects to increase DO at wetland outlets
3. Non-TMDL Parameters (actions required by TMDLs not associated with a pollutant for which a numerical reduction of improvement can be specified)
 - a. Restoration or enhancement of in-stream habitat
 - b. Increases in channel roughness to enhance DO
 - c. Removal or bypass of barriers to connectivity
 - d. Streambank restoration below the top of the bank
4. Other Watershed Benefiting Improvements as Recommended by the TAC

C. Guidelines

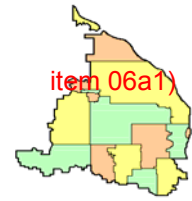
1. Capital improvements must be for water quality or ecological integrity improvement, and must be for improvement above and beyond what would be required to meet Commission rules or common practice. Only the cost of “upsizing” a BMP above and beyond is eligible.
2. Routine maintenance activities are not eligible.
3. The effectiveness of any proposed nonstructural improvements must be supported by literature or academic/practitioner experience and documentation.
4. The applicant must agree to document the effectiveness of any proposed nonstructural improvements and report those results to the Commissions for at least five years.
5. The standard Commission/Member Cooperative Agreement will be executed prior to BMP implementation. This Agreement will specify the type and adequacy of effectiveness reporting.

The members discussed and tweaked the language of the draft policy.

Motion by Ray, second by Scharenbroich directing Staff to move forward the policy with the proposed revisions to the Commissioners’ July 11, 2019 meeting and to initiate a Minor Amendment to their Watershed Management Plan to incorporate the policy. *Motion carried unanimously.*

IV. Minneapolis Subwatershed Assessment.* The Shingle Creek Commission and the City of Minneapolis initiated a subwatershed assessment (SWA) to identify pollutant load reduction opportunities for that part of the City located within the watershed, focusing on total suspended solids (TSS) and total phosphorus (TP) reductions.

The assessment area discharges into Ryan and Crystal lakes and Shingle Creek. Crystal Lake and Shingle Creek are Impaired Waters. Ryan Lake has recently been removed from the state’s list of Impaired Waters due to improved water quality and is now a Protection Water. Currently the assessment area



generates an estimated total annual load of 520,876 lbs. of TSS and 1,834 lbs. of TP. Priority areas for load reduction were identified based on the City's knowledge, pipeshed loadings per acreage, land use, parcel ownership and road construction plans. Implementation of these BMPs not only focuses on pollutant load reduction, but also aims to provide aesthetic value for the area.

Land use in the study area is largely residential, with some commercial/industrial and institutional uses. The density of the development leaves very limited space for large stormwater infrastructure. Due to space limitation, it was typically not possible to design the stormwater BMPs to treat the first 1.1 inches of runoff from drainage area impervious surfaces. Most of the proposed BMPs are either retrofits of existing structures or can be completed with planned road reconstruction.

Common stormwater BMPs considered in this exercise were stormwater ponds, tree trenches, raingardens, and iron-enhanced sand filters. There is limited soil data in the area, so significant infiltration practices were generally not considered. In addition, favorable locations in proximity to Shingle Creek may have high groundwater tables that also would prevent the use of infiltration.

Section 4 of the report provides detailed information for each identified BMP, including location, drainage area, initial investment cost, 30-year lifecycle cost, cost benefit for pollutant removal, and potential. (*Table 2-1 will be restated.*)

Spector reminded the members that the BWSR Competitive Grant expires at the end of this year. She also noted that a community meeting must be held prior to completion of the project.

V. Ten Things Brochure.* The brochure has been completed and printed and WMWA members have received about 10,000 copies printed at no charge by Hennepin County. The brochure can be found at shinglecreek.org/uploads/5/7/7/6/57762663/2019_ten_things_final.pdf. Fifty copies for each city are provided at this meeting. Additional copies can be requested from the administrative office.

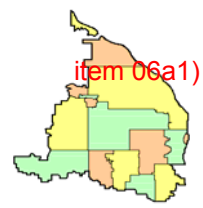
VI. Lake Conditions.

A. Recent Fish Kills. Included in the meeting packet is an Information Release* addressing reports of fish kills, high water and green algal surface mats in metro area waters. The release informs the public that the likely cause of these phenomena is the unusual spring weather that has occurred coincidental with fish spawning and the early days of submerged aquatic vegetation growth.

With vegetation growth not yet fully underway, all those extra nutrients were taken up by filamentous algae which has become very abundant on several lakes and floated to the surface. This algal growth also uses up large amounts of oxygen dissolved in the shallow waters. Fish that moved into the lake shallows looking for spawning grounds were then faced with depleted oxygen on top of the stress of spawning. For many fish the conditions were too stressful and they did not survive.

Commission staff have consulted with both the DNR East and West Metro Area Fisheries Supervisors who agreed with this assessment of spring conditions. They also added that it is typical of a natural fish disease (*Columnaris*) to cause added stress in the spring, which may have also contributed to fish kills in many area lakes. Though this year produced the perfect storm of events, it is not expected to have long-lasting effects. There are thousands more fish within the lakes to replenish populations, the submerged vegetation will continue to grow, the surface algae will die back, and the water levels will continue to fall as spring dries out into summer. This item will be included on the Commission's July agenda.

B. Lake No-Wake Declarations. The members discussed the high-water levels in watershed lakes and how no-wake declarations are set. It was noted that the Hennepin County Sheriff does not set or publish the declarations and, in most instance, neither do the cities. Most agreed that a flag system at



boat launch areas works best to inform boat operators of no-wake conditions. It was also agreed that this information should not be posted to the Commissions' website.

VIII. Other Business.

A. Members discussed a letter being crafted by the Bassett Creek Watershed Management Commission to the MPCA asking what it will take to **include new BMPs in the Stormwater Manual** -- what test or process to evaluate those new BMPs prior to inclusion. There was a consensus to coordinate with the BCWMC in this process, if they are agreeable. This item will be included on the Commission's July agenda.

B. Matthiesen met with MnDOT regarding the upcoming **Highway 252/I-94 project**. Preliminary design will be completed in 2022. He inquired whether the members would like this project to be included on future TAC agendas. It was agreed to keep the process at the city level. MnDOT is starting a multi-year project to add lanes, remove at-grade access and build bridges and ramps.

C. The **next meeting** of the Technical Advisory Committee is scheduled for 8:30 a.m., Thursday, July25, 2019, Crystal City Hall.

D. The meeting was adjourned at 9:42 a.m.

Respectfully submitted,

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

Judie A. Anderson
Recording Secretary

Z:\Shingle Creek\TAC\2019 TAC\06-21 2019 minutes.docx

Apply for BWSR Grants

BWSR offers a variety of competitive and noncompetitive grant programs to its local government partners. These funds may be appropriated through the [Clean Water Fund \(/cwf_programs\)](#), [Lessard Sams Outdoor Heritage Council \(https://www.lsohc.leg.mn/\)](#), the general fund, or direct appropriations.

When funding opportunities are available through BWSR, opportunities to submit competitive or noncompetitive funding requests will be listed on this page.

Clean Water Fund (CWF) Competitive Grants

The Board of Water and Soil Resources (BWSR) is now seeking applications for its Clean Water Fund Competitive Grants program. The application period opens July 1 and closes September 9, 2019. More than \$14 million in grants and over \$20 million in loans are available for FY2020 to fund local projects to improve and protect water quality in lakes, rivers and drinking water sources throughout Minnesota.

Local government units (counties, watershed districts, watershed management organizations, soil & water conservation districts, and seven-county metro cities) or local government joint power boards are eligible to apply for funding.

Application deadline: September 9, 2019

- [FY2020 CWF Competitive Grants RFP \(https://bwsr.state.mn.us/sites/default/files/2019-07/190626_FINAL%20RFP_FY20CWF.pdf\)](https://bwsr.state.mn.us/sites/default/files/2019-07/190626_FINAL%20RFP_FY20CWF.pdf).
- [FY2020 CWF Competitive Grants Policy \(https://bwsr.state.mn.us/sites/default/files/2019-07/190625_Final%20Policy_FY20%20CWF.pdf\)](https://bwsr.state.mn.us/sites/default/files/2019-07/190625_Final%20Policy_FY20%20CWF.pdf).
- [FY2020 CWF RFP Frequently Asked Questions \(FAQ\) \(https://bwsr.state.mn.us/sites/default/files/2019-07/190627_FINAL%20FAQs_FY20%20CWF%20Grant%20Applications.pdf\)](https://bwsr.state.mn.us/sites/default/files/2019-07/190627_FINAL%20FAQs_FY20%20CWF%20Grant%20Applications.pdf).
- [Multipurpose Drainage Management Budget Worksheet \(https://bwsr.state.mn.us/sites/default/files/2019-07/Final%20FY%202020%20MDM_Project%20Budget_Worksheet.xlsx\)](https://bwsr.state.mn.us/sites/default/files/2019-07/Final%20FY%202020%20MDM_Project%20Budget_Worksheet.xlsx).
- [Projects & Practices - Supplemental Questions for Feedlot Projects \(https://bwsr.state.mn.us/sites/default/files/2019-07/Final%20FY20%20CWF%20Feedlot%20spreadsheet.xlsx\)](https://bwsr.state.mn.us/sites/default/files/2019-07/Final%20FY20%20CWF%20Feedlot%20spreadsheet.xlsx).

Wellhead Protection Partner Grants (Pilot)

The Wellhead Protection Partner Grants (Pilot) program will provide grants to local governments to establish perpetual or long-term protection (20 year minimum) of wellhead protection areas with very high or high vulnerability drinking water supplies where state-held easements are not viable or desirable. The grants will be used to achieve wellhead protection through easement, acquisition, or other long-term (20 year minimum) protection mechanism. The protection mechanism may allow for alternative land uses that protect groundwater while allowing the partner more flexibility than a state-held easement. Permanent protection mechanisms will be prioritized for funding over non-permanent protection.

Application deadline: August 23, 2019

- [Wellhead Protection Partner Grants Program Request for Proposals](https://bwsr.state.mn.us/sites/default/files/2019-07/Wellhead%20Protection%20Partner%20Grants%202019%20RFP%20063019.docx)
(<https://bwsr.state.mn.us/sites/default/files/2019-07/Wellhead%20Protection%20Partner%20Grants%202019%20RFP%20063019.docx>).

CREP Outreach and Implementation

The Board of Water and Soil Resources (BWSR) is accepting proposals from Minnesota Soil and Water Conservation Districts (SWCDs) within the CREP project area for funding under the CREP Outreach and Implementation project (as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR) and funded through the Environmental and Natural Resources Trust Fund (ENRTF). The purpose of the project is to accelerate staff capacity to deliver the MN CREP. These funds must supplement any existing Farm Bill Assistance (FBA) staff currently in place and may not be used as a substitute.

Application deadline: July 15, 2019

- [MN CREP Outreach and Implementation Program Request for Proposals](https://bwsr.state.mn.us/sites/default/files/2019-06/MNCREP_RFP.pdf)
(https://bwsr.state.mn.us/sites/default/files/2019-06/MNCREP_RFP.pdf).

CONTACT

Gwen Steel

Grants and Reporting Specialist

651-600-8390 (tel:651-600-8390)

gwen.steel@state.mn.us

(mailto:gwen.steel@state.mn.us)



Responsive partner.
Exceptional outcomes.

Technical Memo

To: Shingle Creek WMO Commissioners

From: Ed Matthiesen, P.E.
Diane Spector

Date: July 3, 2019

Subject: Meadow Lake Clean Water Fund Grant Opportunity

**Recommended
Commission Action**

Authorize allocation of up to \$5,000 from the Closed Projects Account to prepare a grant application and the required in-lake management feasibility study.

As you know, the Commission, City of New Hope, Bass Lake Improvement Association, and Commission staff have been meeting to discuss the proposed Meadow Lake Management Plan. Wenck staff have been meeting internally to discuss options for proceeding with the various components of the project and will meet with the City and Association on Tuesday, July 9 to discuss and get feedback on those options.

The Board of Water and Soil Resources (BWSR) earlier this week released the RFP for FY 2020 Clean Water Fund grants. Up to \$13,500,000 is available for Projects and Practices and applications are due September 9, 2019. The Meadow Lake Management Plan would be eligible for that program. Our very preliminary estimate of cost, which may vary depending on how discussions with the City and Association go, is about \$270,000. A rough sequence of events would be:

Spring-Fall 2020	Monitor lake water quality, vegetation, fish, zooplankton, and phytoplankton. Take sediment cores.
Fall-2020-Spring 2021	Drawdown. Pumping would likely begin in September and continue until freezeover, the lake would then be allowed naturally to fill up in the spring. Install fish barriers. Perform any other desired work on storm sewer structures.
Spring-Fall 2021	Monitor lake water quality, vegetation, fish, zooplankton, and phytoplankton. Take sediment cores.
Spring 2021	If curly-leaf pondweed or fathead minnows were not entirely eliminated, undertake chemical treatment.
Spring or Fall 2022	Undertake first alum dose.
Spring 2022	If curly-leaf pondweed or fathead minnows were not entirely eliminated, undertake chemical treatment. If native vegetation colonization is not satisfactory, consider a summer drawdown.
Spring-Fall 2021	Monitor lake water quality, vegetation, fish, zooplankton, and phytoplankton. Take sediment cores.

Spring or Fall 2023	Undertake second alum dose
------------------------	----------------------------

BWSR requires an In-Lake Management Feasibility Study to be submitted with grant applications undertaking those activities. Last year we completed and submitted such a study for the Bass and Pomerleau Alum Treatment Project. The cost of that study was part of a program of monitoring that the Commission authorized to be completed prior to submitting the grant application, and was paid for with levy funds that had been set aside for that purpose.

Since the Meadow Lake project hasn't been formally established yet, staff recommends that the Commission authorize the expenditure of up to \$5,000 from the Closed Projects Account to complete this work. The unencumbered balance of the account is about \$70,000.

As the project is estimated right now at \$270,000, the estimated grant request would be about \$216,000 and the Commission's match would be about \$54,000. If approved staff will prepare a draft grant application and feasibility report for review at the Commission's August meeting.



Responsive partner.
Exceptional outcomes.

Technical Memo

To: Shingle Creek/West Mississippi WMC Commissioners

From: Ed Matthiesen, P.E.
Diane Spector
Sarah Nalven

Date: July 3, 2019

Subject: SRP Reduction Project

The Section 319 grant-funded SRP Reduction Project is now underway, and Sarah Nalven will make a presentation at the July 11, 2019 meeting about the project purpose and details about the project design.

Wetlands that have received many decades of nutrient and sediment-rich runoff from agricultural and developed land uses are at risk of transforming from nutrient sinks to nutrient sources. The hydrology of these wetlands has also often been altered by inflow from increased runoff volumes and ditching for drainage and flood prevention. This can have the effect of alternately flooding and drying out the wetland soils, making them more susceptible to sediment nutrient release under anoxic conditions. The discharge from these altered wetlands is often high in SRP and low in dissolved oxygen.

In the Shingle Creek watershed, where nearly all of the remaining wetlands are highly disturbed and altered, these high concentrations of SRP can negatively impact downstream waterbodies. In this watershed, a number of wetlands discharge into conveyances to the ten nutrient-impaired lakes. There are also several large wetlands through which flow Shingle Creek or its tributaries. Both Shingle Creek and its primary tributary, Bass Creek, are impaired streams for DO and biotic integrity.

This SRP Reduction Project targets two high-priority locations to test and implement SRP reduction filters: the outlet of wetland 639W, and the outlet of Cherokee Wetland in Bass Creek Park in Brooklyn Park.

Phase 1, the testing phase, will be at the Wetland 639W outlet site. The overflow outlet is a three-sided weir (Figure 1), the interior of which is filled with limestone rock. Flow over the weir filters down through the limestone and into a small channel that outlets back into the wetland below the primary outlet weir. The limestone will be excavated from the weir box, which will be modified to provide three temporary chambers to test the three different media. Each chamber will be fitted with an outflow pipe to measure the volume of flow through each chamber and to allow for grab sampling for water quality.

In Phase 2 of the project at the Cherokee Wetland outlet site (Figure 2), the treatment device will be a constructed metal box containing the filter medium, placed directly in Bass Creek just downstream of the outlet in Bass Creek Park.



Figure 1. The overflow weir at Wetland 639W.



Figure 2. Bass Creek outlet from the Cherokee Drive wetland to Bass Creek Park.

SHINGLE CREEK / WEST MISSISSIPPI WATERSHED MANAGEMENT COMMISSION
MONTHLY COMMUNICATION LOG
June 2019

item 09a



Date	From	To	SC	WM	Description
6-3-19	Dan Skallman @ MDNR	Ed Matthiesen.	X		Permit re: Crystal Lake pump discharge into Ryan Creek
6-4-19	Resident, Cedar Island Lake	Diane Spector, Tom Langer	X		Report of an ongoing fish kill on Cedar Island Lake. Diagnosed as likely low dissolved oxygen
6-4-19	Diane S	Karen Galles, HCEE	X		Information on actions taken to improve Crystal Lake since the TMDL 5 year review to add to Board report
6-4-19	Resident, Upper Twin Lake	Diane Spector	X		Email sharing that he and neighbors have noted that the lake has more clarity his spring
6-6-19	Elizabeth Brown, MnDOT	Sarah Nalven	X		Email re additional temporary wetland impacts at I-494/Rockford Road Interchange project (SC 2019-002)
6-7-19	Shanna Isle @ Crystal	Ed Matthiesen.	X		Twin Lake property owner asking about shoreline rip rap requirements
6-7-19	Al Stano	Ed Matthiesen.	X		Meadow Lake resident asking about deck placement requirements in New Hope
6-7-19	Megan Hedstrom, New Hope	SCWMC	X		Request for final reimbursement, Bass Creek Stabilization
6-10-19	MPARS, MnDNR	Shingle Creek WMO	X		Copy of Water Appropriation Permit issued for temporary dewatering at Prudential Insurance building, 13001 Bass Lake Road, Plymouth to construct a water main
6-10-19	Stephanie Hatten, WSB	West Miss WMO		X	Final version of Champlin's LWMP, and response to Commission comments.
6-11-19	MPARS, MnDNR	West Miss WMO		X	Copy of request for work in public waters permit to install riprap on the Mississippi River streambank, 11080-11020 W River Rd, Champlin
6-11-19	MPARS, MnDNR	West Miss WMO		X	Copy of request for work in public waters permit to install riprap on the Mississippi River streambank, 12008-12014 Mississippi Dr, Champlin
6-11-19	MPARS, MnDNR	Shingle Creek WMO	X		Copy of Water Appropriation Permit issued for temporary dewatering at Osseo Rd south of Bass Lake Road to facilitate reconstruction of storm sewers
6-11-19	Bob Leba @ SRF	Ed Matthiesen.		X	TH 252 proposed project
6-12-19	MPARS, MnDNR	Shingle Creek WMO	X		Email request for comments re culvert construction/modification/replacement on CSAH 81 (Bottineau Boulevard)—no comment (SC 2019-004)
6-14-19	MelindaKBak@gmail.com	Ed Matthiesen and Diane Spector	x		Langer- responded to citizen concern about fish kill in Middle Twin Lake. Shared .pdf from MnDNR about spring fish kills being related to stress and natural bacteria in lakes.
6-17-19	Katy Thompson, RESPEC (on behalf of MPCA)	Sarah Nalven	X	X	Submitting Crystal and Champlin iron-enhanced sand filters to MPCA database for iron-enhanced sand filters (sent spreadsheet which included a bunch of info about the ponds/filters).
6-17-19	Michelle Lapage @ Middle Twin Lake	Ed Matthiesen.	X		Lake water quality
6-18-19	Cathy Moreman @ Middle Twin Lake/Crystal	Ed Matthiesen.	X		No wake restriction

**SHINGLE CREEK / WEST MISSISSIPPI WATERSHED MANAGEMENT COMMISSION
MONTHLY COMMUNICATION LOG
June 2019**



Date	From	To	SC	WM	Description
6-18-19	Ed Matthiesen.	Edgar Linanes and Tina Miranda @ Hennepin County Sheriff office	X		No wake zone notification
6-24-19	Anthony @ Ryan Companies	Ed Matthiesen.	X		IBEW building additional property purchase in Brooklyn Park
6-25-19	Nancy (did not give last name)	Jeff Strom	X		Nancy is a perspective home buyer on Eagle Lake and contacted the Commission with questions regarding water quality conditions for Eagle Lake after reviewing the 5-year TMDL Review Report on the Commission's website.
6-26-19	Ben Johnson, Kimley Horn	Sarah Nalven.	X		Ben Johnson is working on a site in Maple Grove in which they will be paving a gravel parking lot and doing some mill and overlay improvements elsewhere on site. He was wondering which Commission rules are triggered by his project.
6-27-19	Darrin George @ Brooklyn Park	Ed Matthiesen.		X	Resident at 3501 94 th Ave North asking about cattail removal.
6-27-19	Bob Leba @ SRF	Ed Matthiesen./Sarah Nalven		X	Bob emailed asking about flooding records and flow data for the TH252 project. Sarah sent flow data to Mehdi so he could send back to Bob Leba, once it was neatened up.
6-27-19	Roxy Franta @WSB	Ed Matthiesen.		X	Sent notice of application for Oxbow Park wetland delineation.
6-28-19	Karen Galles HCEE	Diane Spector	X		Request for more information to respond to Commissioner Opat's questions regarding planning for a more permanent solution to the Crystal Lake flooding issue