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(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 12:47 p.m. on Thursday, January 11, 2018, at the Clubhouse at Edinburgh, USA, 8700 Edinbrook Crossing, Brooklyn Park, MN.

Present for Shingle Creek were: David Mulla, Brooklyn Center; John Roach, Brooklyn Park; Burton Orred, Jr., Crystal; Gary Anderson, Minneapolis; Bill Wills, New Hope; Harold E. Johnson, Osseo; Andy Polzin, Plymouth; Troy Gilchrist, Kennedy & Graven; Ed Matthiesen, Wenck Associates, Inc.; and Judie Anderson, JASS.

Not represented: Maple Grove and Robbinsdale.

Present for West Mississippi were: David Mulla, Brooklyn Center; John Roach, Brooklyn Park; Gerry Butcher, Champlin; Harold E. Johnson, Osseo; Troy Gilchrist, Kennedy & Graven; Ed Matthiesen, Wenck Associates, Inc.; and Judie Anderson, JASS.

Not represented: Maple Grove.

Also present were: David Vlasin and Andrew Hogg, Brooklyn Center; Steve Chesney, Brooklyn Park; Todd Tuominen, Champlin; Mark Ray, Crystal; Bob Grant and Megan Albert, New Hope; Ben Scharenbroich, Plymouth; and Richard McCoy and Marta Roser, Robbinsdale.

## II. Agendas and Minutes.

Motion by G. Anderson, second by Wills to approve the **Shingle Creek agenda**. \* Motion carried unanimously.

Motion by Butcher, second by Roach to approve the **West Mississippi agenda**. \* Motion carried unanimously.

Motion by Johnson, second by Wills to approve the **minutes of the December regular meeting**. \* Motion carried unanimously.

Motion by Roach, second by Butcher to approve the **minutes of the December regular meeting**. \* Motion carried unanimously.

## III. Finances and Reports.

A. Motion by Orred, second by G. Anderson to approve the **Shingle Creek Treasurer's Report**. \* Motion carried unanimously.

Motion by Johnson, second by Orred to approve the **Shingle Creek January claims**. \* Claims totaling \$25,041.18 were approved by roll call vote: ayes – Mulla, Roach, Orred, G. Anderson, Wills, Johnson, and Polzin; nays – none; absent – Maple Grove and Robbinsdale.

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

Motion by Roach, second by Johnson to approve the **West Mississippi January claims**. \* Claims totaling \$7,573.71 were approved by roll call vote: ayes – Mulla, Roach, Butcher, and Johnson; nays – none; absent – Maple Grove.



#### IV. Open Forum.

A. Mulla informed the Commissions that he is stepping down as the Commissioner from Brooklyn Center. Vlasin will serve as Commissioner in 2018-2021, with Mulla serving as Alternate Commissioner. Mulla was thanked for his service and the knowledge he has shared with the Commissions.

B. Matthiesen advised the Commissioners that Metro Blooms will be applying for cost share funds for the Autumn Ridge project in Brooklyn Park. (See item VII., below.)

#### V. Project Review.

**SC2018-001 Crystal MAC Nature Area Trail Improvements, Crystal.\*** Improvement of trails at Crystal MAC Nature Area consisting of leveling existing boardwalks, connecting existing boardwalks with a new boardwalk connection, and reconstructing an aggregate trail connection. The project does not increase impervious surface and disturbs 0.3 acres. A complete project review application was received December 29, 2017.

The Commission's water quality treatment, volume management, and rate control requirements do not apply because the project does not increase impervious surface. Therefore, the applicant meets those requirements.

The site consists of an approximately 40-acre wetland. The City of Crystal is the LGU for Wetland Conservation Act administration. Mark Ray of Crystal confirmed that the proposed project complies with WCA.

A public watercourse runs through the site, and the project proposes no change in flow path or capacity. The project meets Commission public waters requirements.

There is floodplain on this site. The 100-year flood elevation is 856.1 ft., and is controlled by a 450 ft. sheet pile weir with an elevation of 856 ft. and by an overflow weir. Although boardwalks are being raised in several locations, impacts to floodplain will be minimal because the boardwalk will be raised on cylindrical piers.

An erosion control plan was submitted with the project review and includes rock construction entrances and perimeter silt fences. The erosion control plan meets Commission requirements.

A public hearing on the project was conducted on September 13, 2017 as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.

Motion by Willis, second by Orred to advise the City of Crystal that project 2018-01 is approved with no conditions. *Motion carried unanimously.*

#### VI. Watershed Management Plan.

Staff memos dated January 5, 2018 outline suggested activities for the 2018 Work Plans. Most are ongoing activities, although some rotate around the watershed. Additional details will be offered in the proposed Monitoring Plans that will be presented to the Commissions at the February meeting.

##### A. Continue to implement TMDLs and stay abreast of regional TMDLs.

1. Complete the 5-year performance review for the Cedar Island-Pike-Eagle TMDL review, and if budget is sufficient initiate the reviews for Magda and Meadow.

2. Identify and discuss options for aquatic vegetation management funding and implementation in lakes following internal load reduction projects, and establish policy.

3. Partner with the City of Plymouth to undertake alum treatments on Bass and Pomerleau Lakes.

4. In partnership with the cities of Crystal, Brooklyn Center, and Robbinsdale, continue to implement the Twin Lakes Management Project, including carp removal, aquatic vegetation management, and installation of fish barriers and a lake aeration system.



5. Partner with the City of Minneapolis to complete a subwatershed BMP assessment.
  6. Continue to pursue grant funding for TMDL implementation projects.
  7. Expand the Directly Connected Untreated Areas geodatabase to include boundaries of the untreated areas directly connected to the lakes in the watershed. (Streams were completed in 2017.)
  8. Continue to identify, pursue grant funding for, and implement projects and programs addressing the bacterial impairment in the Mississippi River.
  9. Stay abreast of other regional and state TMDLs.
  10. Identify boundaries of the untreated areas directly connected to the Mississippi River or other conveyances.
- B. Partner with other organizations to increase reach and cost effectiveness.**
1. Participate in the West Metro Water Alliance joint education and outreach group.
  2. Continue to partner with the USGS to operate the Queen Avenue monitoring site.
  3. Partner with the USGS, DNR, and other interested parties to stay abreast of groundwater issues. Compile and review existing data and evaluate options for developing the proposed “whole watershed water budget.”
  4. Partner with a member city to complete a subwatershed BMP analysis.
- C. Continue ongoing administration and programming.**
1. Conduct routine Commission lake water quality monitoring and aquatic vegetation and fish surveys on Ryan and Crystal Lakes. This will start the second cycle through all the lakes (except Palmer and Curtis, which are considered wetlands and are not monitored). Conduct water quality monitoring and aquatic vegetation surveys on Upper, Middle, and Lower Twin Lakes through the Twin Lake Management Project grant.
  2. Conduct Commission routine flow and water quality monitoring at SC\_0 and SC\_3 on Shingle Creek and Bass Creek Park (BCP) on Bass Creek as well as two DO longitudinal studies. Conduct fish and macroinvertebrate monitoring on all three sites in advance of the Shingle and Bass Creeks Dissolved Oxygen (DO) and Biotic Integrity TMDL 5 Year Review in 2019.
  3. Sponsor volunteer stream monitoring through RiverWatch and wetland monitoring through WHEP (Hennepin County).
  4. Sponsor volunteer lake monitoring through CAMP (Met Council) on Cedar Island, Meadow, Success, and Pomerleau Lakes.
  5. Undertake routine flow and water quality monitoring at two outfalls into the Mississippi River.
  6. Complete reviews of development and redevelopment projects as necessary.
  7. Prepare an annual water quality report.
  8. Solicit cost-share projects from member cities funded from the Cost Share Fund and the annual \$100,000/\$50,000 levy and the Partnership Cost Share Fund and the annual \$50,000 levy.
  9. Review feasibility studies for 2018 proposed capital projects, undertake Plan Amendments, hold public hearings, order projects and certify levies.
  10. Prepare a 2019 annual budget.
  11. Invite three guest speakers to make water resources-related presentations at regular meetings.
  12. Tour project sites in the watershed.



Motion by G. Anderson, second by Orred to approve the proposed Shingle Creek 2018 Work Plan with the inclusion of the FEMA Flood Mapping project if it is funded. *Motion carried unanimously.*

Motion by Butcher, second by Johnson to approve the West Mississippi 2018 Work Plan as proposed. *Motion carried unanimously.*

#### **VII. Cost-Share Funding.**

Included in the meeting packet is a Technical Memo\* to the SCWM Technical Advisory Committee (TAC) dated January 5, 2018. The memo is a summary of a Partnership Cost-Share Program Application for the Autumn Ridge Apartments project in Brooklyn Park to fund the first phase of a 5-year stormwater retrofit plan for the site and will be presented to the TAC at their February 1, 2018 meeting.

The application partners include the residents of Autumn Ridge, Sherman Associates (property owners), Metro Blooms and the City of Brooklyn Park (the City). Application partners have been developing a 5-year stormwater retrofit plan for the site. The first phase of the 5-year stormwater plan includes the installation of five raingardens, two trench drains, a native planting, permeable pavement, removal and installation of trees and training of maintenance staff for installation and maintenance of stormwater practices. The application pertains to the first phase only.

The proposed project budget is \$135,358. The applicants are requesting \$50,000 from the Shingle Creek Commission and an additional \$55,000 from Hennepin County. The property owner will contribute \$30,358. The total cost of the project seems appropriate for the scope and scale of the project; however, the costs associated with Raingardens 1 and 2 are on the low side of industry standards. The low costs may be attributed to project partner in-kind services and installation assistance through volunteer labor.

Shingle Creek is impaired for chloride. The application states the proposed project addresses the chloride impairment through runoff volume reduction, the use of permeable pavement in the most heavily foot-trafficked area on site, and maintenance training for the proper application of road salt. The application mentions that on-site maintenance staff and the Autumn Ridge property manager will participate in training sessions lead by Metro Bloom's Landscape Architect both during and after installation of BMPs. Following installation, training will focus on proper maintenance of each practice, including sweeping and vacuuming permeable pavement, weed identification and management, watering, inlet/outlet clearing, plant/mulch replacement and signs of erosion. Metro Blooms will also provide this training for any landscape contracting company the property owner hires to maintain Autumn Ridge outdoor spaces. In addition, the property owner will require their maintenance staff and property manager to attend a course on proper winter salt application.

The application states that the proposed stormwater best management practices capture 14.7 lbs. of Total Phosphorus, 4,418 lbs. of solids and 2,667,374 gallons of runoff water annually as modeled in WinSLAMM. The cost per pound phosphorus removal is \$9,208 based on construction costs. This is slightly under the \$10,000 seen as typical for rain gardens.

Staff recommend funding the partnership cost-share program for the Autumn Ridge Participatory Landscape Project in an amount of \$50,000, subject to the relevant Partnership Cost-Share Guidelines, including but not limited to:

1. Cost-share is on a reimbursable basis following completion of the project.
2. The property owner must dedicate a public easement or equivalent to install and maintain the BMPs.
3. The member city must obtain a recordable maintenance agreement from the property owner that specifies maintenance requirements and schedule; authorizes the City to inspect the BMPs and order maintenance and improvement; and authorizes the City to undertake ordered maintenance and improvement not completed by the property owner, and assess the cost of work to the property.



4. The standard Commission/Member Cooperative Agreement will be executed prior to project construction.

#### VIII. Education and Outreach.

##### A. Included in the packet was the **December WMWA (West Metro Water Alliance) update.\***

1. WMWA has switched its email distribution system for the **WaterLinks** e-newsletter from Hennepin County to MailChimp. In order to continue to receive WaterLinks (or to newly subscribe), go to [westmetrowateralliance.org/contact.html](http://westmetrowateralliance.org/contact.html) to sign up. The next issue of Water Links will be out in the first quarter of 2018 and will feature late winter/early spring-related content.

2. WMWA is currently discussing options for assisting property owners with **rain gardens and native plant conversions**. Two options being considered are 1) funding two hours of on-site technical assistance for owners who take the Metro Blooms Landscaping workshop; and/or 2) providing reimbursement for the cost of purchasing native plants, up to a certain amount, say \$100. These ideas are still under development.

3. The website **Google Analytics** for December 2017 and January-December 2017 for the Shingle Creek/West Mississippi Commissions are included in the update, as are the Facebook insights for the last 28 days for both Shingle Creek and WMWA.

B. The next **WMWA meetings** are scheduled for 8:30 a.m., Tuesday, January 16, 2018, and Tuesday, February 13, 2018, at Plymouth City Hall. Commissioners are encouraged to attend or send staff.

#### IX. Grant Opportunities.

A. In the December meeting packet was a draft of a **work plan to update the hydrologic and hydraulic modeling and special flood hazard areas** in the watershed. The draft work plan was submitted to the MnDNR as a proposal for funding with pass-through grants provided by FEMA. Matthiesen provided an update on the status of this project. More should be known in time for the February meeting.

B. The **Bass and Pomerleau Alum Application Project\*** Clean Water Fund grant application was approved for full funding (\$267,040) by the Board of Water and Soil Resources (BWSR) in December 2017. Staff are working with BWSR to submit a work plan and contract and expect those to be in place by about March 2018. The grant is 75% of the estimated project cost. The Commission's share of the project cost will be an estimated \$66,760. The Commission previously approved expending up to \$53,400 for preliminary design, additional sediment cores to refine dosing applications, and updated fish surveys on both lakes. That \$53,400 and \$66,760 will be funded from the \$202,000 levy previously certified and collected for the Bass Lake Pond project, leaving an estimated \$80,000 available to be transferred to the Closed Projects Account to be applied to another project.

Part of the \$53,400 previously approved, approximately \$23,000, was to obtain additional sediment cores to refine dosing calculations that had previously been prepared from the results of a single available core. The data from the additional cores has allowed Staff to refine the recommended dosing and reduce the application cost for Bass Lake from about \$122,000 to about \$81,000. We haven't yet completed the refined dosing calculations for Pomerleau, but expect that there will be additional savings for that lake as well. The savings from the reduced application cost can be used to enhance aquatic vegetation management or other actions to ensure the success of the project.

Staff met with Plymouth staff to discuss the process to implement these projects. They agreed that the target date for application is September-October 2018 for both lakes. Plymouth staff will schedule a series of meetings with the Bass Lake Association and residents on Pomerleau Lake, the Environmental Quality Commission (EQC), and the City Council. Assuming all parties desire to go forward with the project, a project hearing would be held in April-May 2018 and go out for bid in about June 2018. This revised schedule will allow the Commission to proceed with the required Minor Plan Amendment on its usual schedule rather than on an accelerated schedule as discussed at the December 2017 Commission meeting.



Motion by Mulla, second by Wills to move unexpended funds as described above to the Closed Projects Account. *Motion carried unanimously.*

**C. Twin Lake Carp Project.** A contractor has been identified who will remove carp from the lakes during the winter months. Carp removal is scheduled for January 18-19, 2018.

**D. Section 319 Grant Application.\*** Staff participated in an MPCA conference call regarding the upcoming Section 319 grant solicitation, which is expected to open at the end of January, with applications due by the end of February. Their January 11, 2018 memo outlines a potential grant application that could be submitted.

In 2017 the Commission authorized submitting a grant application to the Minnesota Stormwater Research Council for the Wetland 639W Filter Media Phosphorus Removal Bench Tests research project. It was not funded. That project would have conducted bench tests of several options to reduce dissolved phosphorus in the outflow from wetland 639W. A complicating factor is that the outflow is typically low in dissolved oxygen, which limits the use of iron-enhanced sand. These conditions are fairly typical of outflow from disturbed wetlands that periodically export phosphorus.

This potential grant application would be to design and install filter media at the outlet of Wetland 639W and at the outlet of Cherokee Wetland, on Bass Creek at Cherokee Drive in Brooklyn Park. That site is just upstream of Bass Creek Park and the Bass Creek Park monitoring station. Both these wetlands export high concentrations of dissolved phosphorus, particularly soluble reactive phosphorus. Staff have gotten proficient in designing for settleable/particulate phosphorus but the soluble portion remains difficult to capture. The filters would test various combinations of iron-enhanced sand, zeolite-enhanced sand, and a product called Phoslock mixed with sand. The outflow from each of these filters would be monitored to see which medium performs the best. On conclusion of the testing phase, the lesser-performing media would be removed and replaced with the best-performing medium considering life-cycle costs. In addition to the outlet filters, the pool at the overflow outlet on Wetland 639W would be aerated with a small pond aerator to test whether that improves soluble phosphorus capture in the media. The aerator would be installed with a float switch so it turns on only when the elevation of water in the pond rises high enough to overflow the weir.

The estimated cost of literature review, design, installation of the filters at the two locations and the aeration system at the wetland 639W outlet, two years of performance monitoring, and documentation is \$125,000. Section 319 grants require a 40% match, so the grant request would be about \$75,000 and the Commission's share would be about \$50,000. This project would need to be added to the Commission's CIP in the 2018 Minor Plan Amendment already planned to add the Bass and Pomerleau Lakes Alum Treatment.

Should the Commission wish to go forward with this application, Staff will refine the cost estimate and prepare the application (once the RFP is out) and bring it back to the Commission at the February 8, 2018 meeting for review and approval to submit. The Commission has budgeted \$10,000 to prepare grant applications in 2018, and it is expected that the cost of Staff time would be about \$2,000.

As part of this call MPCA advised participants that it expects in the next year or so to refocus 319 grants away from competitive grants for individual projects to selecting watersheds to fund several focused projects over multiple years. This may be one of the last years that 319 grants will be available for research type projects.

Motion by Wills, second by Roach to authorize Staff to prepare the grant application for this project. *Motion carried unanimously.*

Motion by Roach, second by Johnson to authorize Staff to prepare the grant application for this project. *Motion carried unanimously.*

**E. BWSR Funding.\*** The Board of Water and Soil Resources is potentially moving from a competitive grant funding model to a watershed-based funding model. For the metro area, the funding will be allocated by county, calculated based on the square mileage of private land within the county. County and municipal-owned



land is included as private land for the purposes of this calculation. Hennepin County's share of watershed-based funding for FY 2018-2019 is \$1,018,000.

If all WMOs in Hennepin County choose to create a collaborative group for the watershed-based funding, that share of funds is available for Hennepin County projects. If the watershed organizations choose to remain in the competitive-based grant funding, that money will be pooled with other counties who also choose to remain competitive-based, meaning that Hennepin County watershed organizations may receive more or less than the \$1,018,000. The decision on whether to move forward as a collaborative within the county or to remain as competitive must be made by June 30, 2018. This decision can be changed in the future, but BWSR requires that the eligible LGUs complete a documented process to make that determination by June 30.

The watershed-based funding pilot program does allow certain activities to be eligible for BWSR grant funds that are not eligible under the competitive grant program such as: programs, project support, grant management and reporting, and technical and engineering assistance necessary to implement activities.

Beginning over the next few weeks, Hennepin County will be convening a meeting of all eligible LGUs, which includes Watershed Districts, WMOs and Cities with a state-approved plan (City Local Water Management Plans are considered state-approved if approved by the governing Watershed). The first meetings are to determine eligible participants, establish voting representation, establish a direction for the collaborative, and discuss potential projects for FY2018-2019.

Staff are requesting approval to attend the Hennepin County collaboration meetings on behalf of the Commission. Commissioners and cities will also be invited to participate in these meetings.

*Motion by G. Anderson, second by Willis to approve this request. Motion carried unanimously.*

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

#### **X. Communications.**

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

**B.** Included in the meeting packet was a copy of a letter\* from the Commissions to Minnesota Senators Melisa Franzen and Scott Dibble and State Representatives Dario Anselmo and Frank Hornstein supporting the efforts of the StopOverSalting group regarding limiting liability for commercial chloride applicators.

**C.** Matthiesen was interviewed in a story entitled, "Shingle Creek's cautionary tale for Minnesota water," January 10, 2018, [www.mprnews.org](http://www.mprnews.org).

#### **XI. Other Business.**

**A.** Members were reminded that triennial **appointments** are due for the cities of Brooklyn Center, Brooklyn Park, [Champlin](#) and [Crystal](#).

**B. Election of 2018 officers** will occur at the February meeting. Those individuals wishing to serve should inform J. Anderson prior to the February meeting.

**C. Adjournment.** There being no further business before the Commissions, the meetings were adjourned at 2:12 p.m.

Respectfully submitted,

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

Judie A. Anderson  
Recording Secretary

JAA:tim

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