

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

**MINUTES**  
**Regular Meetings**  
**April 14, 2016**

(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 Andy Polzin, Chair, and Gerry Butcher, Chair, respectively, on Thursday, April 14, 2016, at 12:45 p.m., at the Clubhouse at Edinburgh, USA, 8700 Edinbrook Crossing, Brooklyn Park, MN.

Present for Shingle Creek were: David Mulla, Brooklyn Center; Karen Jaeger, Maple Grove; Bill Wills, New Hope; Andy Polzin, Plymouth; Wayne Sicora, Robbinsdale; Troy Gilchrist, Kennedy & Graven; Ed Matthiesen and Jeff Strom, Wenck Associates, Inc.; and Judie Anderson, JASS.

Not represented: Brooklyn Park, Crystal, Minneapolis, and Osseo.

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

Not represented: Brooklyn Park and Osseo.

Also present were: Andrew Hogg, Brooklyn Center; Jesse Struve, Brooklyn Park; Todd Tuominen, Champlin; Mark Ray, Crystal; Liz Stout, Minneapolis; Bob Paschke, New Hope; Leah Gifford and Ben Scharenbroich, Plymouth, Richard McCoy, Robbinsdale; and Laura Schell, Metro Blooms.

II. **Agendas and Minutes.**

Motion by Butcher, second by Mulla to designate Polzin as chair of this meeting. *Motion carried unanimously.*

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

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

Motion by Jaeger, second by Wills to approve the **minutes of the March 10, 2016 Shingle Creek regular meeting**\* as written. *Motion carried unanimously.*

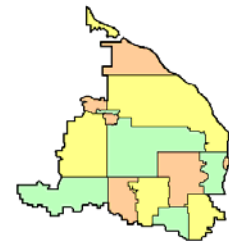
Motion by Jaeger, second by Butcher to approve the **minutes of the March 10, 2016 West Mississippi regular meeting**\* as written. *Motion carried unanimously.*

III. **Finances and Reports.**

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

Motion by Jaeger, second by Sicora to approve the **Shingle Creek April claims**.\* Claims totaling \$36,990.97 were *approved by roll call vote*: ayes – Mulla, Jaeger, Wills, Polzin and Sicora; nays – none; absent – Brooklyn Park, Crystal, Minneapolis, and Osseo.

\*items are included in meeting packet



Motion by Jaeger, second by Willis to accept the **2015 Audit Report,\*** conditioned upon final review by Staff and Chairman Polzin. *Motion carried unanimously.*

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

Motion by Mulla, second by Butcher to approve the **West Mississippi April claims.\*** Claims totaling \$13,930.58 were *approved by roll call vote: ayes – Mulla, Butcher, and Jaeger; nays – none; absent – Brooklyn Park and Osseo.*

Motion by Butcher, second by Mulla to accept the **2015 Audit Report.\*** *Motion carried unanimously.*

**IV. Open Forum.**

**V. Project Reviews.**

**A. WM2016-03 Elm Creek Senior Apartments, Champlin.\*** Construction of new residential apartments with parking and patio on a five-acre site located at 11635 Theatre Drive. New BMPs consisting of an underground stormwater vault and bio-filtration basins will be installed to treat and attenuate the stormwater runoff from the project site. Following development, the site will be 52.2% impervious, an increase of 2.602 acres. A complete project review application was received March 17, 2016.

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 - 80-85% TSS removal and 50-60% TP removal. Infiltration of the first 1.3" runoff from the site within 48 hours also meets Commission requirements for water quality.

Runoff from the site is proposed to be routed to an underground stormwater vault or one of two interconnected bio-filtration basins. The underground stormwater vault will receive runoff from the majority of the site (3.81 acres) while the two bio-filtration basins will receive the remainder of the runoff.

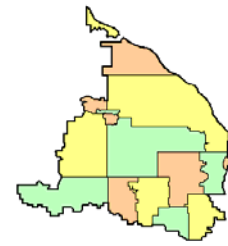
Prior to entering the underground stormwater vault, stormwater will be routed through sump manholes to provide pretreatment. The underground stormwater vault consists of 18" of free draining gravel sand with 6" drain tile throughout and 42" of free draining angular washed stone with 9 rows of 36" perforated CMP running throughout.

The bio-filtration basins include a 4" perforated underdrain pipe encased in a gravel blanket and covered with a minimum of 18" planting medium. The proposed underground stormwater vault and the two bio-filtration basins provide a total of 12,808 CF. This is greater than the required 12,252 CF needed to contain a 1.3" storm event. The applicant meets the Commission's water quality treatment requirements.

Commission rules require that site runoff be limited to predevelopment rates for the 2-, 10-, and 100-year storm events. The majority of runoff from the site is directed to an underground stormwater vault, which ultimately exits the site through a proposed 24" RCP near the north access driveway to Theatre Drive. The remaining runoff from the site is directed to one of two proposed bio-filtration basins, which will ultimately exit the site through a proposed 12" RCP at the southeast corner of the site. The applicant meets the Commission's rate control requirements for ultimate discharge from the site to the existing storm sewer system.

The Commission rules require volume control BMPs be incorporated in the design to minimize the creation of new impervious surface and minimize the amount of directly connected impervious surface. The site must be able to contain a 1" storm event over the impervious surface area of the site. A 1" storm event would require a volume reduction of 9,447 CF. The site design includes an underground stormwater vault designed to have a storage volume of 11,269 CF. The applicant meets the Commission's volume control requirements.

\*items are included in meeting packet



The NWI does not identify any wetlands on site. West Mississippi is LGU for WCA administration. There are no Public Waters on this site. There is no floodplain on this site according to FEMA. 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, meeting Commission requirements.

There is no known contaminated soil/groundwater according to the project engineer. Infiltration will not cause detrimental effects to the groundwater. An erosion control plan was submitted with the project review which includes perimeter silt fence, inlet protection, and a rock construction entrance. The erosion control plan meets Commission requirements.

A public hearing on the project has been conducted as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.

Motion by Butcher, second by Jaeger to advise the City of Champlin that WM2016-03 is approved, subject to the following conditions:

1. Applicant must execute a maintenance agreement with the City to assure proper function of the sumps and drainage system.
2. Applicant shall submit a landscape plan for the bio-filtration basins showing the proposed plantings.

*Motion carried unanimously.*

**B. WM2015-04 Champlin Street Project.\*** Reconstruction of 4,900 LF of streets, addition of one new street with utilities, and installation of utilities on South Diamond Lake Road, Depue Drive, Dayton Road, and Mississippi View Estates Street. A complete project review application was received March 31, 2016.

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 - 80-85% TSS removal and 50-60% TP removal. Filtration of the first 1.3" runoff from the site within 48 hours also meets Commission requirements for water quality.

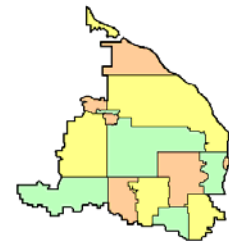
Runoff from 6.9 acres of the site is proposed to be routed to a series of three infiltration ponds and the remaining portion is to be routed directly to the Mississippi River. The applicant does not meet the Commission's water quality treatment requirements.

Sump manholes are not present in the design. The performance of sump catch basins is related to the volume in the sump (i.e., the storage in the catch basin below the outlet). The Commission recommends the use of MnPCA guidelines, which advocate the use of the program SHSAM for appropriately sizing the sumps. Another source of optimal water quality sump treatment sizing is available in "Urban Stormwater Management and Technology: Update and Users Guide," Lager et al. (1977). Another option that can reduce the overall size of the sump is to incorporate hydrodynamic separation. Two economical options that the Commission recommends considering are SAFL Baffle or The Preserver™, both of which have design guidelines for optimal water quality treatment.

Commission rules require that site runoff be limited to predevelopment rates for the 2-, 10-, and 100-year storm events. Runoff from the site is directed to a series of three infiltration basins and directly to the Mississippi River. The applicant meets the Commission's rate control requirements.

Commission rules require the site to infiltrate 1.0" of runoff from new impervious area within 48 hours or filtration of 1.3". The new impervious area on this site is .78 acres, requiring that 2832 CF be infiltrated within 48 hours. The applicant proposes to a series of three infiltration basins that have the capacity to infiltrate the required volume within 48 hours, meeting Commission requirements. The applicant will conduct a post-construction infiltration test on the infiltration basin to verify the infiltration rates used in the design. If not met, corrections will be made to meet the design infiltration rates.

\*items are included in meeting packet



The NWI does not identify any wetlands on site. There are no Public Waters on this site. There is no floodplain on this site according to FEMA. 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, meeting Commission requirements.

There is no known contaminated soil/groundwater according to the project engineer. Infiltration will not cause detrimental effects to the groundwater. An erosion control plan was submitted with the project review, and includes temporary and permanent seeding on the affected yards. The erosion control plan meets Commission requirements.

A public hearing on the project has been/will be conducted as part of Planning Commission and City Council review of this project, meeting Commission public notice requirements.

Motion by Butcher, second by Jaeger to advise the City of Champlin that WM2016-04 is approved, subject to the following conditions:

1. Sediment capture prior to entering into the infiltration practices, manhole 5014 on sheet 44 and the Mississippi River, manhole 5135 on sheet 51
2. Provide silt fence around infiltration ponds after construction
3. Conduct a post-construction infiltration test on the infiltration basin to verify the infiltration rates used in the design. If not met, then make corrections as necessary to meet the design infiltration rates.

*Motion carried unanimously.*

## VI. Water Quality.

### A. Hennepin Commissioner Mike Opat. Included in the meeting packet were the following:

1. A copy of a letter\* from Commissioner Opat to Chairman Polzin as a follow-up to his attendance at the March meeting.
2. An email response\* to that letter from Diane Spector, Wenck Associates.
3. A copy of the presentation\* given at the March meeting. Commissioners are encouraged to use this information in disseminating information about the Commission to their cities/residents.

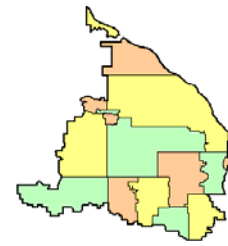
**B. 2015 Annual Water Quality Report.\*** Strom presented the findings from the monitoring programs in which the Commissions participate –stream monitoring, citizen assisted lake monitoring, 5-year TMDL review lake monitoring, outfall monitoring, macroinvertebrate monitoring, and wetland monitoring. The report will be available on the Commissions' website at <http://www.shinglecreek.org/water-quality.html>. It will also serve as an addendum to the Shingle Creek and West Mississippi 2015 Annual Reports.

Motion by Sicora, second by Jaeger to accept the 2015 Annual Water Quality Report. *Motion carried unanimously.*

Motion by Mulla, second by Butcher to accept the 2015 Annual Water Quality Report. *Motion carried unanimously.*

**C. Replacement Monitoring Equipment.\*** An Inco submerged pressure transducer is currently deployed at the Environmental Preserve outfall monitoring station. This transducer is used to record flows and also to trigger automatic water quality sampling. It appears after close inspection that this pressure transducer has been partially chewed by an animal, exposing the wiring, and possibly affecting the functionality and accuracy of the data being collected. Data was collected after the pressure transducer was installed at the Environmental Preserve site to assess if the equipment was collecting accurate level data. It appeared that there was a high amount of variability in the level readings which indicates that the data produced using this equipment may not be reliable.

\*items are included in meeting packet



Staff recommend that the current pressure transducer be replaced with a new Isco pressure transducer at a cost of \$840; excluding tax and shipping. The 2016 operating budget does not include a contingency line item as the Commission carries a substantial unrestricted cash reserve. Staff recommend that the Commission fund the cost of replacing this equipment, expected to be no more than \$900, from cash reserve. Motion by Butcher, second by Mulla to approve this expenditure. *Motion carried unanimously.*

## VII. Watershed Management Plan.

**A.** At its March 24, 2016 meeting the Technical Advisory Committee (TAC) received and discussed an application from the Cleveland Neighborhood Association (CNA) of Minneapolis for a Partnership Cost-Share project called “**Blooming Alleys for Crystal Lake.**”<sup>\*</sup> The proposed project would be completed in association with Metro Blooms and the Conservation Corps of Minnesota and is modeled on a similar program in southwest Minneapolis that has already completed 18 Blooming Alleys. This project will build on prior community rain garden projects in the Cleveland neighborhood (30 gardens installed) to engage property owners along one demonstration alley to learn about and install stormwater management practices in driveways and backyards adjacent to the alleyway. Practices include rain gardens, permeable pavement, native plantings, and gutter/downspout re-direction. Based on prior experience, 25-50% of alley residents are expected to participate, resulting in the installation of 10-15 new stormwater BMPs.

The estimated cost of the project is \$34,660. The requested cost share from the Commission is \$17,000. Hennepin County is contributing \$10,000 to this project, the neighborhood received a Conservation Corps grant for labor, and the City will sponsor a workshop on rain gardens and other practices. Each participating property owner will be required to pay or contribute through volunteer labor 5-10% of the project cost. Each participating property owner will be required to execute a 10-year maintenance agreement with the CNA, and the City will work with the CNA to ensure maintenance is being properly performed. A maintenance agreement template<sup>\*</sup> was included in the packet.

Representatives from Minneapolis presented the proposed project to the TAC and answered questions. Stout and Schell were present at this meeting to answer additional questions. The TAC recommends to the Commission that the request from the CNA for \$17,000 from the Partnership Cost-Share Program be approved.

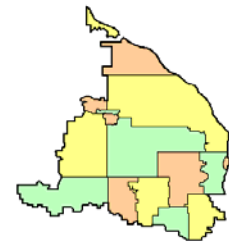
Motion by Sicora, second by Jaeger to approve the request for \$17,000 from the Cost Share Program for this project. *Motion carried unanimously.*

**B. 2016 Capital Improvement Program<sup>\*</sup> and Minor Plan Amendment.<sup>\*</sup>** The Commissions must report their 2016 maximum levies to Hennepin County by June 1. In May or June 2016 the TAC must receive feasibility reports for the projects proposed in 2016 and make a recommendation to the Commissions. In July Commissions must consider which projects should proceed to a September public hearing. Following the public hearing, the Commissions must certify the actual levies to the County. Table 1 on the following page shows the status of CIP projects under consideration for 2016. The cities have requested that most of the projects identified for 2016 be rescheduled for future years as they are not ready to proceed.

The Commissions currently have a Minor Plan Amendment in process to add the Becker Park project to the 2017 CIP. Staff recommends that this proposed MPA be amended to make an additional change to the CIP for 2016. Some of the ponds that will be retrofitted with iron and biochar-enhanced sand filters as a part of the grant project, those that were added when the Commission applied for but did not receive the Twin Lake Demonstration Grant, are on the CIP as separate projects. However, not all the ponds are on the CIP.

Staff recommends that the project “Iron and Biochar-Enhanced Sand Filter Retrofits” be added to the Shingle Creek CIP for 2016 at a total project cost of \$126,900, and \$40,000 to the West Mississippi CIP for 2016. This is the construction cost for the ponds, catch basin inserts, and Shingle Creek direct flow filter. Furthermore, since this is a research project, Staff recommends that the Commissions fund 100% of this cost since all the cities will benefit from the research that is being conducted to design and quantify the reductions achieved. The three pond projects added for Twin Lake – 45th Avenue, Lions Park, and Killmer – can then be removed from

<sup>\*</sup>items are included in meeting packet



the CIP. The recommended 2016 CIP for each Commission is shown in Table 2.

The County Board is expected to consider the MPA in committee in May and then hold a public hearing in June. The Commissions may then adopt the MPA at the July 2016 meeting. A copy of the proposed **Notice of Minor Plan Amendment\*** is included in the meeting packet.

Motion by Wills, second by Sicora to approve the proposed 2016 CIP. *Motion carried unanimously.*

Motion by Jaeger, second by Mulla to approve the proposed 2016 CIP. *Motion carried unanimously.*

Motion by Wills, second by Jaeger to authorize Staff to proceed with the minor plan amendment process. *Motion carried unanimously.*

Motion by Butcher, second by Mulla to authorize Staff to proceed with the minor plan amendment process. *Motion carried unanimously.*

**Table 1. Potential Shingle Creek/West Mississippi 2016 CIP Projects.**

Project	Total Estimated Cost	Commission Share	Recommendation
Cost share (city projects)	\$200,000	\$100,000	Proceed as is
Maple Grove Pond P57	\$648,000	\$162,000	City: Move to 2017
Maple Grove Pond P33	\$574,000	\$143,500	City: Move to 2017
Maple Grove Pond P55	\$855,000	\$213,800	City: Move to 2019
Webber Park Stream Restoration	\$500,000	\$125,000	City: Move to 2019
Minneapolis Flood Area 5	\$6,000,000	\$250,000	City: Move to 2019
Unspecified Shingle or Bass Creek Project	\$500,000	\$125,000	Nothing pending, move to 2019
45 <sup>th</sup> Avenue Pond Retrofit	\$270,000	\$67,500	Proceed as recommended
Partnership cost share (private projects)	\$100,000	\$50,000	Proceed as is
<b>TOTAL</b>	<b>\$9,647,000</b>	<b>\$1,236,800</b>	
Cost share (city projects)	\$50,000	\$50,000	Proceed as is
<b>TOTAL</b>	<b>\$50,000</b>	<b>\$50,000</b>	

**Table 2. Recommended Shingle Creek/West Mississippi 2016 CIP Projects.**

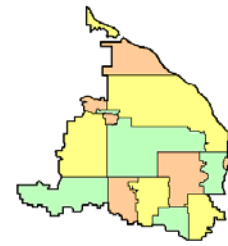
Project	Total Estimated Cost	Commission Share	Recommendation
Cost share (city projects)	\$200,000	\$100,000	Proceed as is
Iron and Biochar-Enhanced Sand Filter Retrofits	\$126,900	\$126,900	Minor Plan Amendment
Partnership cost share (private projects)	\$100,000	\$50,000	Proceed as is
<b>TOTAL</b>	<b>\$426,900</b>	<b>\$276,900</b>	
Cost share (city projects)	\$50,000	\$50,000	Proceed as is
Iron and Biochar-Enhanced Sand Filter Retrofits	\$40,000	\$40,000	Minor Plan Amendment
<b>TOTAL</b>	<b>\$90,000</b>	<b>\$90,000</b>	

**VIII. Education and Outreach.**

**A.** Motion by Jaeger, second by Willis to accept the **2015 Annual Activity Report\*** pending review and comments by April 22, 2016. *Motion carried unanimously.*

\*items are included in meeting packet





Motion by Mulla, second by Butcher to accept the **2015 Annual Activity Report\*** pending review and comments by April 22, 2016. *Motion carried unanimously.*

**B.** A reminder that the week of April 16-23, 2016 is **Earth Week** and the 14th Annual **Great Shingle Creek Watershed Cleanup**. Brooklyn Center will host a cleanup of Shingle Creek on April 16 and the Minneapolis Park Board will host a citywide cleanup on Saturday April 23.

**C.** Staff have created a **Facebook page** called Shingle Creek Watershed Management Organization. As of April 13 it has 26 Likes, mostly individuals. Commissioners and TAC members are encouraged to Like the page, and to invite their own friends who may be interested. It is also linked to member cities' Facebook pages. Staff will post things about once a week, depending on what is happening. Some of those posts will simply be notices of meetings, etc., but photos from ongoing projects will also be included. Wenck staff will also be more active taking photos as they are monitoring, etc. Photos or posts should be submitted to Diane Spector for posting or you can post directly on the Commission's Facebook. Judie Anderson and Amy Juntunen at JASS are administrators on the site as well.

Included with Staff's April 14 memo\* are the **analytics for the website** for March 2016 – 949 total page views in March, with 399 total and 301 unique page views of the Home Page and the rest spread among the other pages. The most popular pages are the Minutes and Meeting packets page and the Rules and Standards page.

**D. WMWA Update.**

**1.** The **Planting for Clean Water and Pollinators Project** is underway. WMWA is working with Metro Blooms to develop a roll out. We will be forwarding an article to all the member cities for their newsletters, and a short blurb and graphics to place a link to the campaign on their websites and social media. Metro Blooms is also developing a rack card for city information kiosks and to hand out at events. You can visit the campaign site at <http://www.bluethumb.org/pledge/>.

**2. Educators.** The two contract educators are winding down the spring semester classroom visits. One of the educators, Jen Schaust, will be leaving for a full-time job at the Dept. of Agriculture, working on education and outreach. She has already been in communication with a possible replacement teacher, who is interested in taking over.

**3.** The **next WMWA meeting** is May 10, 2016.

**IX. Grant Opportunities and Updates.**

Metropolitan Council has opened a **Stormwater Grant Program**. The deadline for grant applications, which must be submitted by watershed organizations, is May 11. [The City of Crystal will contact Joe Mulcahy at Met Council for a determination as to whether the Becker Park Infiltration Project would be eligible for this round of funding under extenuating circumstance wherein the project will not be completed by the grant "completion date" of December 31, 2018.](#) Motion by Sicora, second by Mulla to approve this action. *Motion carried unanimously.*

**X. Communications.**

**A.** The **February and March communications logs\*** were included in the meeting packet. No action required.

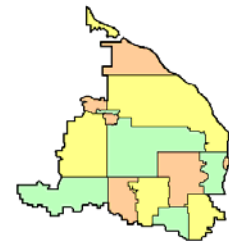
**B.** Included in the meeting packet was a sheet listing links to information regarding the **2015 Buffer Legislation**.

*[Butcher departed 2:34 pm.]*

**C.** **Concept plan revealed for Mississippi River Park.\*** Information was included in the packet regarding plans by the Three Rivers Park District and Brooklyn Park to redevelop the Coon Rapids Dam Regional Park and the neighboring Brooklyn Park Environmental Nature Area.

**XI. Other Business.**

\*items are included in meeting packet



**XII. Adjournment.**

There being no further business before the Shingle Creek Commission, motion by Sicora, second by Wills to adjourn. *Motion carried unanimously.*

*Lacking a quorum the West Mississippi Commission ended without a motion.*

The meeting was adjourned at 2:37 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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