

**MINUTES**

September 10, 2009

**corrected**

I. A meeting of the Shingle Creek Watershed Management Commission was called to order by Chair Tina Carstens on Thursday, September 10, 2009, at 12:45 p.m., at Lancer at Edinburgh, 8700 Edinbrook Crossing, Brooklyn Park, MN.

Present were: Della Young, Brooklyn Center; Tina Carstens, Brooklyn Park; Janet Moore, Crystal; Karen Jaeger, Maple Grove; Jeff Johnson, Minneapolis; Diane E. Stauner, New Hope; Dawn Swanson, Plymouth; Wayne Sicora, Robbinsdale; Charles LeFevere, Kennedy & Graven; Diane Spector and Joe Bischoff, Wenck Associates, Inc.; and Judie Anderson, JASS.

Also present: Shelley Schwaninger and Steve Lillehaug, Brooklyn Center; Kevin Larson, Brooklyn Park; Jon Knutson, Champlin; Tom Mathisen, Crystal; Lois Eberhart and Pat Byrne, Minneapolis; Dan Stauner, New Hope; Kevin Springob, Plymouth; Richard McCoy, Robbinsdale; Barbara Peichel, Minnesota Pollution Control Agency (MPCA); and Randy Lehr, Three Rivers Park District.

Not represented: Osseo.

II. Motion by D. E. Stauner, second by Swanson to **approve the revised agenda**. *Motion carried unanimously.*

III. Motion by Jaeger, second by D. E. Stauner to approve the **minutes of the August 13, 2009 meeting**. *Motion carried unanimously, Young abstaining.*

Motion by Jaeger, second by D. E. Stauner to approve the **notes of the August 13, 2009 Performance Review and Assistance Program (PRAP) Work Session**. *Motion carried unanimously, Young abstaining.*

IV. Motion by Jaeger, second by Swanson to approve the **Treasurer's Report**. *Motion carried unanimously.*

V. Motion by S. E. Stauner, second by Jaeger to approve the **September claims**. Claims totaling \$36,706.68 were *approved by roll call vote*: ayes – Young, Carstens, Moore, Jaeger, Johnson, D. E. Stauner, Swanson, and Sicora; nays - none; absent - Osseo.

**VI. Open Forum.**

Eberhart presented plans for an area of Minneapolis know as **Flood Area 5**. Located southwest of the Crystal Lake Cemetery, this area is tributary to Crystal Lake and experiences localized flooding. The City has been developing options for reducing flooding, managing stormwater runoff volumes and reducing nutrient loading. Being considered are residential rain gardens, vacant lot storage, community greenway, alley underground storage, rerouting stormwater in existing pipes, underground vaults, and increasing pipe sizes in strategic locations. This project could be considered as an amendment to the Commission's Capital Improvement Program (CIP) in early spring 2010 and as part of the Commission's third generation Watershed Management Plan.

**VII. Public Hearing.** The meeting was suspended at 1:30 p.m. for the purpose of conducting a public hearing to take comment on the **Shingle Creek 2009 Capital Project – 2009-1 Crystal Lake Water Quality Improvement Project**.

**A.** The Commissioners received Staff's September 3, 2009 memo outlining the public hearing process and describing the project. Also included was the Technical Advisory Committee's (TAC's) recommendation to approve project 2009-1. The memo concluded with Staff's recommendation to approve a resolution ordering the project, certifying the Commission's share of the costs to the county levy, and approving the agreement with the City of Robbinsdale. Bischoff presented the project and answered the Commissioner's questions re safety concerns and infiltration.

**B.** The Chair opened the **public hearing** at 1:50 p.m. to receive comments. No comments were received from the reviewing agencies, member cities or Commissioners.



One comment was received from the public – an email received on September 10, 2009, from Peter Braaten, 3715 Beard Avenue North, Robbinsdale, MN. It included a revised plan for Lake View Terrace Park. McCoy responded that the City has seen the revised plan and taken Braaten's comments into consideration. The City is asking for a third-party review in conjunction with the already-approved plan. Braaten's email addresses the layout of the park, which is not an issue for this hearing.

Motion by D. E. Stauner, second by Young to close the public hearing. *Motion carried unanimously.* The hearing was closed at 1:53 p.m. No discussion followed.

Motion by Jaeger, second by D. E. Stauner to adopt **Resolution 2009-04 Ordering 2009 Improvement, Designating Member Responsible for Construction, and Making Findings and Certifying Costs to Hennepin County Pursuant to Minnesota Statutes Section 103B.251.** *Motion carried unanimously.* A copy of the Cooperative Agreement with the City of Robbinsdale was also included in the meeting packet.

The regular meeting resumed at 1:25 p.m.

**VIII. Communications.** The Commissioners received copies of the following:

- A. Communications Log.**
- B. Minnesota Plant List.** Commissioner Stauner also provided a link to a list of Minnesota native plants, [http://files.dnr.state.mn.us/eco/plant\\_list9-25-02.pdf](http://files.dnr.state.mn.us/eco/plant_list9-25-02.pdf).
- C. Notice of open houses for public input on the Bottineau Corridor Analysis Results.**

**IX. Watershed Management Plan.**

The Commissioners received Staff's September 10, 2009 memo regarding the Major Plan Amendment. The proposed amendment would adopt a revision to the Commissions' joint Capital Improvement Program for year 2010 to add a potential \$750,000 Shingle Creek restoration project in Brooklyn Park between Regent and Noble Avenues. The Board of Water and Soil Resources (BWSR) board approved the amendment on August 27, 2009. Approving a resolution adopting the amendment is the final step in the amendment process which began in January 2009. Motion by Johnson, second by D. E. Stauner to adopt **Resolution 2009-03 Adopting a Major Plan Amendment to the Second Generation Plan Revising the Capital Improvements Program.** *Motion carried unanimously.*

**X. Water Quality.**

**A.** Staff's September 4, 2009 memo provided an update on the status of the **pending TMDLs** in the watershed.

**1.** The **Pomerleau-Schmidt-Bass Lakes TMDL** has been submitted to the Environmental Protection Agency (EPA) for final approval, which is expected by mid-September. Revisions are being made to the Implementation Plan before submittal to the Minnesota Pollution Control Agency (MPCA) for final approval.

**2. Cedar Island-Pike-Eagle Lakes TMDL.** Hutchinson Technology has decided to relocate its reverse osmosis discharge point back to the Bass Creek side of the building. This means no adjustments need to be made to the Pike Lake wasteload allocation or load reductions. However, this must be addressed in the Bass Creek TMDL. The TMDL is in final review and circulation at the MPCA in preparation for the Public Notice, which is expected in a few weeks. Following the 30 day Public Notice, the MPCA must respond to any comments received, make any necessary changes to the TMDL, and wait at least 30 days before submitting the TMDL to the EPA for final approval. Final revisions will then be made to the Implementation Plan for submittal to the MPCA for final approval.

**3. The Meadow Lake TMDL** is in final review and circulation at the MPCA in preparation for the Public Notice, which is expected by month-end. Following the 30 day Public Notice, the MPCA must respond to any comments received, make any necessary changes to the TMDL, and wait at least 30 days before submitting the



TMDL to the EPA for final approval. Final revisions will then be made to the Implementation Plan before submittal to the MPCA for final approval.

**4. The Lake Magda TMDL** is at the EPA for review. Comments are expected by mid-September, after which necessary revisions will be made and the TMDL will be circulated internally to prepare for the Public Notice period as described above.

**5. Shingle Creek DO/Biotic TMDLs.** The DO models are completed and in the final stages of calibration. Staff have not made a final decision as to whether they can conduct the fish survey this fall. It has been wetter, but stream flow is back to the lower levels experienced earlier this summer. Once the lake TMDLs have been completed they will complete the remaining tasks for this TMDL, including public and TAC meetings. Moore expressed concern re the amount of money spent on this study since fluctuations naturally occur. Peichel responded that it is challenging to deal with biotics in streams; however [MPCA and the Commission] are trying to fulfill the requirements of EPA's Clean Water Act re expectations for urban and rural streams.

**B.** Spector gave a pictorial and graphical presentation of the August 19, 2009, **2-year 3-hour rain event**. On that date the northern suburbs received 1.8 inches of rain in three hours. Brooklyn Park city staff took photos of Shingle Creek at the Village Creek development between Zane and Regent Avenues at the height of the event and Wenck staff took photos a few hours after the event. Since one of the Commission's monitoring stations (SC-3) is just upstream of this development and the Crystal Airport rain gauge is nearby, this was a good opportunity to demonstrate stream "flashiness."

One of the major difficulties in managing urban streams is that they tend to be very responsive to precipitation events. Storm sewers efficiently carry runoff to the stream, which rises rapidly. The engineered shape of modified channels such as Shingle Creek conveys the stormwater rapidly downstream at high velocities. The stream level falls nearly as rapidly as it rises, often with small secondary peaks as stormwater ponds and other storage areas discharge later in the event. When the stream returns to much lower base flow, the engineered channel is usually overwide and the stream depth can fall to only a few inches.

This "flashiness" can be destabilizing to streambanks. It is also hard on aquatic organisms as they may have few natural refugia left to shelter them from the sudden increased stream flows. Channels are engineered to efficiently carry high flows, and at low flows are very low or even dry. The flashiness of urban runoff is one of the key stressors in most urban stream biotic TMDLs, including Shingle and Bass Creeks.

#### **XI. Project Review.**

**2008-11 Reflections at Arbor Lakes, Maple Grove.** This project proposes to develop a vacant but disturbed site adjacent to a gravel stockpiling area with an assisted living facility, townhomes and a vacant lot for future commercial designation. The 14.28 acre site is currently zero percent impervious. Following development, the site will be 38 percent impervious, an increase of 5.46 acres. A complete project review was received August 28, 2009.

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. Runoff from the site will, for the most part, be routed through bioinfiltration ponds prior to being discharged into storm sewer routed to either city regional pond P52.4 or P65. The regional ponds were sized to accommodate this development. Commission rules require that site runoff be limited to predevelopment rates for the 2-, 10-, and 100-year storm events. The City regional ponds were sized to meet that requirement.

Commission rules also require the site to infiltrate 0.5" of runoff from new impervious area, or 0.25 acre-feet, within 48 hours. Bioinfiltration basins with storage of 0.50 acre-feet are provided, to be planted with MnDOT 340 native grass/forb mix. The engineer's report states that the soils are HSG A which, if maintained, will be conducive to infiltration.



The project does not propose to impact any wetlands. The City of Maple Grove is LGU for WCA. There are no Public Waters or floodplains on this site.

The Erosion Control Plan includes perimeter silt fence, rock construction entrance, inlet protection, and slope protection and meets Commission requirements. Native seed is specified in the bioinfiltration basins.

This project area is part of a regional development plan approved in 2008 but not built, and has now been modified. A public hearing has been held by the Planning Commission.

Motion by Jaeger, second by D. E. Stauner to advise the City of Maple Grove that approval of Project 2008-11 is granted subject to the following conditions:

**A.** To maintain and improve site permeability it is recommended that areas to be planted with native vegetation be fenced off as soon as grading work is completed in order to minimize compaction from construction equipment traffic. Till all areas that will receive seed or sod prior to placement.

**B.** The emergency overflow from the northernmost basin is directed offsite. Provide information as to where that overflow goes.

**C.** Emergency overflows for some, but not all, of the infiltration basins are shown. Provide EOF for all infiltration basins.

**D.** Provide information on the hydrologic modeling of the infiltration basins and connecting pipes, including the design event or depth, and demonstrate that the basin/pipe layout does not create unacceptable street ponding or pipe surcharging.

*Motion carried unanimously.*

## **XII. Special Studies.**

**A.** The **Wetland 639W** Technical Advisory Committee met in July for a field trip to the wetland and to review refined design plans and preliminary cost estimates. At that time two design options were considered. Both included a sheet pile weir at the south end of the wetland and a bypass upstream at about the midpoint. After the walk-through the TAC requested that three additional options be considered.

**1.** Run the SWMM model for the ten-year precipitation record assuming just the sheet pile weir was installed and no bypass weir.

**2.** What would be the cost of routing the bypass pipe south down the middle of the wetland rather than to the east or west?

**3.** What would be the cost of routing the west option bypass through a channel along the proposed pipe alignment?

Staff have completed the modeling and preliminarily estimated costs (excluding engineering and any required easements) and load reductions for each of the options. These numbers were summarized in Staff's September 4, 2009 memo. Based on the summary, the Commission can choose to do nothing; select the sheet pile weir only option; or select one of the bypass plus sheet pile weir options. Before it can formally receive the grant funds for this project, the Commission must select a preferred option for presentation to the Metropolitan Airports Commission (MAC) for their approval. An on-site meeting with MAC has been scheduled for September 15, 2009.

Assuming the "west option" to be the preferred option, discussion centered on a number of issues:

**a.** Would the cattails remain moist? (Yes, more water would be routed over the bypass.)

**b.** [Mathisen] City of Crystal would have a problem with the open channel option.



- c. Considering the Robbinsdale project, does the sheet pile weir need to maintain moisture? (Yes.)
- d. How would the “west option” be planted to deter geese? (It would be live-staked.)
- e. With intermittent overflow, this system would be more visible. Would there be some pools throughout that would get deeper? (Yes, as deep as three feet. Would also have 8-foot cattails.)
- f. Why do we need MAC’s approval? It is essentially a nice deep swale. (Large square area [shown on the map] is leased to the cities of Crystal and Brooklyn Center. Lease does not call for structures. Commission would be asking for easements. MAC may use this as an opportunity to update the lease agreement. MAC cannot be assigned a load allocation if they’re not an MS4. MAC is governed by the FAA which prohibits large tracts of open water.)
- g. Recommend showing pictures of the Pike Creek project to MAC representatives.

Motion by Carstens, second by D. E. Stauner to select the bypass plus sheet weir “west option” as the preferred option and authorize Staff to prepare plans and specs. *Motion carried unanimously.*

**B. Paired Intersection Study.** Instrumentation has been installed on the Control pavement section and will be installed on the Test pavement section after paving has been completed. It is expected that the porous pavement will be placed on the Test section during the week of September 21. Emails will provide as much notice as possible of this work so that interested parties can observe. The pour will be fully photo-documented.

Wenck staff are working with Xcel Energy on the installation of the monitoring cameras on power poles adjacent to the Control and Test sections. The cameras will record and compare the buildup and melt of snow and ice on the two sections. The installation cost is part of the DER grant. The contract for this service is being reviewed by the Commission’s attorney, who has suggested some language modifications to be incorporated into a revised contract. Motion by D. E. Stauner, second by Jaeger to authorize execution of the revised contract. *Motion carried unanimously.*

A proposed contract between the MPCA and the Commission for completion of the Paired Intersection Study will also be reviewed by LeFevere prior to execution, after which the Commission may submit a request for reimbursement for costs incurred to date. The contract should be available for signature at the October meeting. The Commission approved a professional services contract with Wenck Associates for this work at the February 2009 meeting.

### **XIII. Education and Public Outreach.**

#### **A. Water Quality Education Grants.**

1. Students who participated in the **2009 Patrick Henry High School project** will present a recap of their project as part of the October watershed tour.

2. The Commissioners received the final reports on the **Cleveland Neighborhood and Victory Neighborhood Rain Garden Projects**. Thirty rain gardens, 15 in each neighborhood, were created through a special program offered by Metro Blooms as a variation to their Part A and Part B workshops. The Part A workshop is a classroom workshop covering several general water quality topics and providing an overview of rain garden construction. Traditionally, the Part B workshop is a small group assisted by landscape architecture interns who help the property owners design their rain gardens. Under this special program, Part B included on-site consultation with a landscape architect intern who provided designs to the property owners. A work crew from Metro Blooms dug the rain gardens. The property owners were responsible for planting and maintaining their rain gardens. Pictures of the projects were viewed during the meeting.

B. Staff will continue discussions with three website providers re options for alternative hosting and updating of the **Commissions' website**.

C. **NEMO – Nonpoint Education for Municipal Officials.** On September 4, Amy LeMieux, JASS, attended the monthly NEMO meeting. NEMO offers a variety of presentations, tools and methods to communities and local water resource educators to provide effective programs for local decision-makers. NEMO is a national program with 32 states currently participating. Northland NEMO has been in Minnesota since 1993. Its partners include the Capitol Region, Minnehaha Creek, Nine Mile Creek, Rice Creek, and South Washington Watershed Districts, Mississippi WMO, Vermillion River Joint Powers Organization, Met Council, MPCA, U of M Extension, Minnesota Sea Grant and the Water Resources Center.

MPCA is starting the process of creating **Minimal Impact Design Standards (MIDS)**. MIDS will include performance standards to be adopted as city ordinances for practices such as rain gardens, green roofs, pervious pavement, etc. Stakeholder meetings will be held throughout the state in October. More information will be provided as it becomes available.

D. The next meeting of the **Joint Education and Public Outreach Committee** is scheduled for 8:30 a.m., Tuesday, October 13, 2009, at Plymouth City Hall. The group will begin developing the education and public outreach program for the coming year.

[Johnson departed 2:59 p.m.]

#### XIV. **Grant Opportunities.**

A. **Section 319 TMDL Implementation Grants.** The Commissioners received copies of the grant work plans prepared and submitted to the MPCA for **Crystal Lake Nutrient TMDL Alum Treatment Project** and the **Twin Lake Wetland 639W Nutrient Export Reduction Project**. They have been reviewed by the MPCA and submitted to the EPA for review and approval. Funding for these projects are \$300,000 and \$82,500, respectively.

B. **Other Grant Opportunities.** There will be upcoming grant opportunities resulting from the funds raised from last years' approved state constitutional amendment dedicating sales tax to natural resources and arts programs. These may be worth pursuing to help fund projects on the Commissions' or cities' CIPs, or projects that have been discussed but are not yet on the CIPs.

1. The Lessard-Sams Outdoor Heritage Council has developed the **Conservation Partners Grants Program** to provide funding for the enhancement, restoration, or protection of forests, wetlands, prairies, and habitat for fish, game, or wildlife in Minnesota. That grant announcement is expected soon, with the first round of grant applications due November 3, 2009, and the second round March 1, 2010. Examples of some projects that might qualify are wetland restoration or restoration of fish habitat in lakes or streams.

2. The grant programs to be funded from the **Clean Water Fund** are still in development, but it is likely that they will include funding for TMDL implementation projects, projects that are protective of non-impaired waters, and likely some dedicated funds for agricultural BMPs and other focus areas. The lake TMDLs identified a number of potential projects and some stream restoration projects are being developed as well. It is expected that grant solicitation will occur this fall.

3. **Riparian Restoration and Stream Stabilization Program.** Hennepin County received \$500,000 from the Clean Water Fund to make small grants to projects that reduce erosion and stabilize stream banks. Priority will be given to projects that incorporate the use of the Minnesota Conservation Corps or the Tree Trust, or that significantly leverage grant funds from other sources. Improvement of Impaired Waters is also a priority. There are potentially several small projects on Shingle or Bass Creeks that could use MCC or Tree Trust labor to repair localized erosion, remove invasive species, plant native buffers, and add habitat features such as root wads and rock vanes.



Peichel gave a brief recap of other upcoming state and federal grant programs. Staff will advise member cities of these grant programs and investigate possible opportunities for project-sharing.

**XV. Other Business.**

**A.** The Commissions have discussed touring **sites in the watersheds** following the October meeting.

**1.** Some **potential sites** include creek restoration sites in Brooklyn Park, Wetland 639W, Paired Intersection Study test section, Crystal Lake, Twin Oak Pond site, Stauner rain garden, Lake Success, Pike Creek restoration, New Hope pond project sites, Arbor Lakes pond projects sites, potential West Mississippi wetland restoration sites, Great River Energy LEED platinum building and site, wetland monitoring sites, and city project sites. Moore requested that her neighborhood rain gardens be included on the list. Staff recommended that the tour conclude at Webber Park in Minneapolis with a presentation from the Patrick Henry High School students.

**2.** This list is more than can be completed in 1.5 - 2 hours. One suggestion is to break it up into an October tour and a November tour. A site like Pike Creek would be easier to view later in the season when leaves have fallen and vegetation is less dense. It was agreed by consensus to conduct two tours and that the October meeting begin at noon.

**B.** The Board of Water and Soil Resources will present the results of the **Performance Review and Assistance Program (PRAP)** review at the October meeting.

**C. Adjournment.** There being no further business before the Commission, motion by Jaeger, second by Moore to adjourn. The meeting was adjourned at 3:13 p.m.

Respectfully submitted,

Judie A. Anderson  
Recording Secretary

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