



## Bassett Creek Watershed Management Commission

### Minutes of Regular Meeting

Thursday, May 17, 2018

8:30 a.m.

Golden Valley City Hall, Golden Valley MN

#### 1. CALL TO ORDER and ROLL CALL

On Thursday, May 17, 2018 at 8:32 a.m. in the Council Conference Room at Golden Valley City Hall (7800 Golden Valley Rd.), Chair de Lambert called to order the meeting of the Bassett Creek Watershed Management Commission (BCWMC) and asked for roll call to be taken.

#### Commissioners and city staff present:

City	Commissioner	Alternate Commissioner	Technical Advisory Committee Members (City Staff)
Crystal	NA	NA	Absent
Golden Valley	Absent	Jane McDonald Black	Eric Eckman, Jeff Oliver
Medicine Lake	Clint Carlson	Gary Holter	Absent
Minneapolis	Michael Welch	NA	Liz Stout
Minnetonka	Mike Fruen	Bill Monk	Tom Dietrich
New Hope	Absent	Pat Crough	Megan Albert
Plymouth	Jim Prom	Absent	Derek Asche
Robbinsdale	Michael Scanlan	Absent	Richard McCoy, Marta Roser
St. Louis Park	Jim de Lambert	Absent	Erick Francis
<b>Administrator</b>	Laura Jester, Keystone Waters		
<b>Engineers</b>	Karen Chandler, Michelle Kimble, Greg Wilson, Jen Koehler – Barr Engineering		
<b>Recorder</b>	Dawn Pape, Lawn Chair Gardener		
<b>Legal Counsel</b>	Troy Gilchrist, Kennedy & Graven		
<b>Presenters/ Guests/Public</b>	Laurie Larsen, Crystal resident; Chuck Schmidt, New Hope resident; George Abide, Golden Valley resident; Jeannie and Howard Schwartz, Golden Valley residents; Bob Friddle, City of Minneapolis; Devin Power, SRF Consulting		

**2. CITIZEN FORUM ON NON-AGENDA ITEMS**

Chuck Schmidt, a resident of New Hope, reported on a gully from the railroad tracks near Winnetka Pond. Although he has reported on this gully in the past, he noted it has progressed much closer to tracks. He sent an email to the railroad company; they said they will forward it on to their engineers. Mr. Schmidt also indicated he is willing to help plant and maintain wildflowers around Winnetka Pond. Engineer Chandler recommended forwarding the emails to and from the railroad to Mark Ray with the City of Crystal and she informed Mr. Schmidt about the upcoming public open house on the Winnetka Pond dredging project.

**3. APPROVAL OF AGENDA**

MOTION: Alt. Commissioner McDonald Black moved to approve the agenda. Commissioner Prom seconded the motion. Upon a vote, the motion carried 7-0. [Cities of Minneapolis and Crystal absent from the vote.]

[Commissioner Welch arrives.]

**4. CONSENT AGENDA**

The following items were approved as part of the consent agenda: April 19 2018 commission meeting minutes, May 2018 financial report, payment of invoices, Fiscal Year 2017 Financial Audit Report, 2017 BCWMC Annual Report, Bassett Creek Park Playground Project, and the Agreement with Met Council for Citizen Assisted Monitoring Program (CAMP).

The general and construction account balances reported in the May 2018 Financial Report are as follows:

Checking Account Balance	\$763,012.71
<b>TOTAL GENERAL FUND BALANCE</b>	<b>\$ 763,012.71</b>
<b>TOTAL CASH &amp; INVESTMENTS ON-HAND (5/9/18)</b>	<b>\$ 3,653,194.63</b>
CIP Projects Levied – Budget Remaining	(\$ 5,201,159.45)
Closed Projects Remaining Balance	(\$ 1,547,964.82)
2012-2016 Anticipated Tax Levy Revenue	\$ 3,721.01
2017 Anticipated Tax Levy Revenue	\$ 1,771.12
Anticipated Closed Project Balance	(\$ 1,542,472.69)

MOTION: Commissioner Prom moved to approve the consent agenda. Alternate Commissioner McDonald Black seconded the motion. Upon a vote, the motion carried 8-0. [City of Crystal absent from the vote.]

**5. BUSINESS**

**A. Consider Approval of Feasibility Study for Westwood Lake Water Quality Improvement Project (WST-2) and Choose Alternative**

Commission Engineer Chandler noted that at the April meeting, the Commission reviewed the draft feasibility study for this project and discussed various options. She noted that two additional options are included in this month’s final feasibility report.

Engineer Chandler introduced Michelle Kimble from Barr Engineering who gave an overview of feasibility study results and concepts for consideration. She noted that Concepts 1 (Additional Permeable Pavers) and 2 (Expand Filtration Basins) remain the same as were reviewed at last month’s meeting.

Engineer Kimble reviewed educational concepts related to Concept 3 (Linear Water Feature). She noted this feature would collect stormwater runoff from the interpretive center roof and the north patios and the runoff would be routed through a series of channels, basins, and pumps which would recirculate the runoff until the water left the system through infiltration, evaporation, or evapotranspiration. The recirculation pumps could be solar-powered or operated manually by visitors. An overflow would be installed from the downstream basin to Turtle Pond for excess water during storms. Since Turtle Pond is currently stagnant and receives minimal runoff, increasing water to the pond may improve its water quality.

Engineer Kimble reported that in addition to water quality benefits from Concept 3, this system would be designed as an educational experience with signage and interactive features such as a recirculation pump powered with a stationary bike, a wheel, or a hand crank. When initiated, the manual pumping could discharge at a highly visible, elevated, and accessible location. These, or similar educational features, would allow Westwood Hills Nature Center (WHNC) visitors to see the connection between their effort and the recirculation flow.

Engineer Kimble reported that in 2017 WHNC had 36,000 program participants ranging in age from toddlers to seniors and that many more visitors are expected at the future nature center. She reviewed the following ideas for educational opportunities related to Concept 3.

- Install a rain gauge and record how much it rains. Relate the gauge to the amount of water in the system. Have discussion about precipitation trends and if the area is in a wet or dry cycle.
- Place a visual marker within the manhole which shows water level in the pipe/manholes. Relate the marker to the recent amount of rain, or lack of rain.
- Construct the structure that conveys rain from the roof down to the water feature in a location that can be seen when standing inside the building and out on the patio.
- Install signage showing the volume of runoff the system holds and the runoff volume the building roof is generating, which otherwise would be infiltrated if the area was forested.
- Install signage showing the complete hydrologic cycle from rain, runoff, infiltration, evapotranspiration, and overflow; install markers along the linear water feature system to identify each part in the cycle.
- Plant each basin with specific plants for wet and dry zones, allowing staff to educate visitors on plant identification.
- Measure the amount the solar pump is pumping and show how the amount of water being pumped increases when the sun is brighter.
- Install signage inside the building showing the different habitats that are present as part of the greater WHNC project. The linear water feature would give staff a way to show visitors some of those habitats.
- Collect water quality samples from the water feature pools and from Turtle pond, and compare the water quality in each, and to other samples from Westwood Lake.
- Discuss the importance of erosion control when viewing the controlled elevation drops through the linear water feature system.
- Note the variety of animals fairly close to the building as a result of the habitat provided by the linear water feature.

Engineer Kimble reviewed Concept 4 (Heated Sidewalks to reduce the need for salt) and reported circulating glycol was deemed impractical for this location because pump and heater locations would be required throughout the sidewalk area and heating would be uneven. She noted an electrical system would be more effective with this layout, however annual electric costs would be greater than if a glycol system was installed. It was noted this option would require annual maintenance by a building maintenance engineer. Educational signage would be installed near the sidewalks explaining how the system works to improve water quality and why chlorides are harmful to aquatic resources.

Engineer Kimble reviewed Concept 5 (Water Reuse) including capturing stormwater runoff from the building roof and reusing the water for toilet flushing. She noted this option was considered by the WHNC design engineer/architect, but was eliminated due to high costs because the water reuse inside the building would require treating the stormwater with filtration and disinfection prior to reuse. Also, with approximately 36,000 annual visitors, with an average of 1.5 gallons per flush and 1.5 flushes per person, the annual peak water demand would be 81,000 gallons. Approximately nine 1.1-inch rainfall events would be required to meet the annual water demand.

Commissioners reviewed Table 5-1 in the feasibility study with estimated pollutant reductions and estimated costs for each concept. Engineer Kimble indicated that she recommends implementing Concept 3.

**MOTION:** Commissioner Scanlan made a motion to approve the implementation of Concept 3. Commissioner Welch seconded the motion.

During discussion Commissioner Welch noted that this project underscores the work of the CIP Prioritization Committee as this project doesn't fit with typical CIP project outcomes and the significant educational benefits make it difficult to compare to other projects.

Commissioner Scanlan asked about the life expectancy of the project. Engineer Kimble reported that the nature center uses volunteers for vegetation maintenance so maintenance costs are low. She noted plants will need to be maintained and replanted, but it should last 20-30 years.

Another commissioner pointed out that the "return on investment" is low for pollutants removed. (\$350-470/pound of suspended solids removal and \$63,380-84,610/pound of phosphorus removal.)

Chair de Lambert agreed that this is not a water quality project and this lake already has good water quality. He noted that the WHNC is a major resource for west metro grade schools and that it's used for a wide range of events. He announced that he is in support of project.

Commissioner Monk added that water reuse is the future. He noted his interest in Concept 5 because it's a good example for the public. Alternate Commissioner McDonald Black brought up the point that this educational project is 6.5 times the Commission's annual education budget.

Education committee member, Dawn Pape, commended the Commission for supporting education, but underscored McDonald Black's point that this is very expensive education and the value is unclear. She wondered how success would be measured, if the proposed education components would meet the state standards and benchmarks, and whether this educational project encourages behavior changes in reducing chlorides, AIS, or stormwater runoff management—the Commission's top educational goals.

Chair de Lambert reminded the Commission that this money comes from CIP dollars, not the operating budget and that education is squarely in the Commission's purview.

TAC member, Derek Asche, added that the days of ponding and stream restoration projects are likely behind us. Mr. Asche said he thinks we are going to see more of these types of projects that integrate different benefits, like education. Engineer Chandler added that with 36,000 visitors per year these costs are roughly \$10 per person per year. Commissioner Fruen added that this project shows we are changing the way cities are thinking and that education needs to target children. On a similar note, Mr. Asche said that education is the next step in evolution of where we are going. Commissioner Scanlan said that this project is starting a precedent. Mr. Francis mentioned that he thought the actual number of visitors was upwards of 50,000 people per year and that this project is a great opportunity.

Alternate Commissioner McDonald Black noted that creating a metric to help guide these decisions and measure these types of projects would be helpful. She noted it's difficult to compare apples to oranges.

**VOTE:** Made by roll call vote. The motion carried 7-1, with the City of Plymouth voting against and all other cities voting in favor. [City of Crystal absent from the vote.]

**B. Receive Presentation on Schaper Pond Effectiveness Monitoring Results and Consider Next Steps**

Engineer Chandler provided background on the project, presented results of the monitoring and made recommendations for next steps. She reminded the Commission that the Schaper Pond Diversion Project was a BCWMC CIP project constructed in the winter of 2015-2016 and that it was designed to divert water via a floating water baffle within the pond to the northwest part of the pond. She noted the diversion allows water to remain in the pond for a longer period of time, resulting in more pollutants settling out before water exits the pond and enters Sweeney Lake. She reported that in 2016, the Commission approved the use of some of the remaining CIP funds to

study the effectiveness of the pond in 2017. She noted that in short, the monitoring results were surprising and disappointing.

[Commissioner Carlson arrives]

Engineer Chandler reported that when comparing the water quality in the pond and upstream of the pond between 2011 and 2017, several observations were noted including: 1) the water entering the pond had much higher pollutant loads in 2011 than 2017; 2) total suspended solids particles entering the pond were much bigger (and easier to settle) in 2011 than in 2017; 3) total suspended solids concentrations entering the pond from the railroad inlet were nearly twice as high in 2017 as they were in 2011; 4) total suspended solids leaving the pond were 30% higher in 2017 than in 2011; and 4) Schaper Pond is not removing suspended solids or total phosphorus as well as it did in 2011, and during most of the monitored events, the flow-weighted constituent concentrations are higher at the pond outlet than the combined inflow.

Engineer Chandler explained potential factors that may be limiting treatment effectiveness including effectiveness monitoring happening before the pond had a chance to equilibrate; several high water events in 2017 when the barrier was raised off the pond bottom; the presence of carp possibly stirring up the bottom of the pond; construction in the watershed in 2017; water quality improvements upstream of the pond; and changes to the pond's bathymetry.

Engineer Chandler reviewed her recommendations for 2018 including water quality monitoring, a carp survey, and bathymetric surveys. She noted an estimated cost for these activities and reporting at \$21,000.

Jeff Oliver with the City of Golden Valley noted he thinks the Commission is on the right path and that more data are needed to determine whether or not the 2017 results were an anomaly. He suspected carp as having a significant impact. Eric Eckman with the City of Golden Valley echoed Mr. Oliver and stated he wasn't ready to say the project isn't working since this is the first year.

Commissioner Welch commented that investigating if carp play a significant role would be a low cost. He also reminded the Commission that this project was known to be experimental from the beginning.

Alternate Commissioner McDonald Black also commented that she didn't want to abandon this project yet and that it presents a tough situation. She noted that 12 foot rises in high events indicates that more data is needed and that there is still a lot of phosphorus flowing into the lake. Greg Wilson, Barr Engineering, reviewed the flow data.

Commissioner Prom asked if carp were just being surveyed, not removed? Wilson responded that they want to understand how/if carp are impacting water quality.

**MOTION:** Alternate Commissioner Crough moved to approve the memorandum recommendations including performing additional monitoring of Schaper Pond in 2018 with up to \$21,000 from the project's CIP account. Commissioner Scanlan seconded the motion. Upon a vote, the motion carried 8-0. [City of Crystal absent from the vote.]

### **C. Consider Temporary Variance Request for Minneapolis Impound Lot Facility Improvements**

Engineer Chandler provided an overview of the temporary variance request from the City of Minneapolis noting the request was for a temporary surcharge (467 cubic yards of fill) in the floodplain for one year for a new access road from Van White Memorial Blvd. She noted this would increase the flood level by 0.01 ft. She reviewed how the variance conditions were addressed and recommended approval. Administrator Jester reminded the Commission that approving a variance requires action by resolution and that Attorney Gilchrist had drafted a resolution which was displayed on the screen.

**MOTION:** Commissioner Scanlan moved to approve Temporary Variance Request for Minneapolis Impound Lot Facility Improvements. Commissioner Prom seconded the motion.

Discussion: Commissioner Welch asked if this poses a flooding risk noting that the Commission's variance requirements specifically state no allowed floodplain increase. Engineer Chandler replied that another

environmental risk is disturbing contaminated soil and that the 0.01 ft. increase is within the margin of error for modeling. Commissioner Welch asked if there were other options considered.

Bob Friddle with the City of Minneapolis stated they have a Response Action Plan with the Minnesota Pollution Control Agency and that an alternative to a variance is excavating contaminated soils that poses significant environmental costs and risks. He noted the best option is to slightly increase the flood elevation for a year.

Commissioner Monk inquired whether the soil report shows another option instead of surcharge and wondered if this variance is a slippery slope. Mr. Oliver asked if additional properties would be put in jeopardy of flooding because of this. The reply was no.

**VOTE: Upon a vote, the motion carried 8-0. [City of Crystal absent from the vote.]**

**D. Consider Approval of Feasibility Study for DeCola Ponds B & C Improvement Project (BC2,3,8) and Choose Alternative**

Engineer Chandler reminded the Commission that at last month's meeting feasibility concepts for this project were reviewed and discussed. She introduced Jen Koehler from Barr Engineering, who reviewed the project goals of flood reduction, water quality improvements, and habitat restoration, noting that this project meets numerous CIP "gatekeeper" criteria. She also reviewed funding sources along with the \$1.6 million in BCWMC CIP funds (over two years), the city is requesting \$23 million from MDNR's Flood Damage Reduction Grant, plus \$700,000 from Hennepin County and the City of Golden Valley.

Next, Ms. Koehler reviewed concepts 1 and 2 and the hybrid concept 3. Three conceptual designs were evaluated for developing flood storage volume within the DeCola Ponds B and C and the Dover Hills areas. The first conceptual design focused on developing maximum flood storage volume, the second focused on tree preservation (while still providing flood storage), and the third concept concentrated on developing flood storage volume between the first and second alternatives while also trying to preserve trees and develop new habitat.

Ms. Koehler explained how the project could be phased depending on when funding becomes available. Administrator Jester noted that if the full amount is funded by the MDNR, then more money would be available than needed for the project. She asked if the Commission could lower the levy amount. Mr. Oliver replied affirmatively and offered the alternative of reserving funding for future projects in this area. It was decided the decision could be made in September when the maximum levy amount was set.

**MOTION: Commissioner Scanlan moved to approve the implementation of Concept 3. Alternate Commissioner McDonald Black seconded the motion.**

Discussion: Several residents from the DeCola Ponds area and Roslyn Court spoke in support of the project. Mr. Abide indicated that he supported the project and encouraged the Commission to implement concept 1 for even more flood storage. Another resident said he supported the project and had lived through the 1987 flood and noted flooding is a public health issue due to contaminated water and power outages. He stated that he has waited 30 years for action to be taken in this area. Ms. Larsen spoke, noting she is on the board of directors for her condo association (Roslyn Court) and reported the condo building had flooded 6 times in the last 12 years. She thanked the Commission for their time and effort.

Ms. Koehler said she is recommending Concept 3, but that during design more ways to mitigate flooding could be incorporated. There was discussion and reiteration of the project goals. Engineer Koehler added that long-term a total of approximately 60-acre feet are needed among all of these projects. Commissioner Welch noted the need for a detailed cooperative agreement.

Alternate Commissioner Monk wondered if it's possible to approve the CIP funding since this is only a piece of the package. Administrator Jester responded that BCWMC is in this position often and that there will be a public hearing on the project later in the summer and additional chances to understand all the funding pieces before the project is officially ordered.

VOTE: Upon a vote, the motion carried 8-0. [City of Crystal absent from the vote.]

**E. Set 2019 Maximum Levy Amount for Collection by Hennepin County**

Administrator Jester explained that a maximum 2019 levy amount for collection by Hennepin County on behalf of the Commission must be set at this meeting and she reviewed the 2019 CIP costs and her recommendations for a maximum levy amount. She noted the Commission can lower the levy request when it submits its final levy amount in September of this year, but it cannot request more. She also detailed the outcome of the official “convene meeting” on BWSR’s Watershed Based Funding Pilot Program for allocating Clean Water Funds, noting there was consensus among the 11 watersheds and cities attending the meeting that \$102,000 of CWF be used to address chloride pollution county-wide and that the remainder of the funds will be divided by formula among the watersheds. She reported BCWMC will receive \$68,500 which is reflected in the levy request table, as revised and presented at the meeting.

MOTION: Commissioner Welch moved to request a maximum levy amount of \$1,436,000 to Hennepin County for collection in 2019. Commissioner Scanlan seconded the motion. Upon a vote, the motion carried 8-0. [City of Crystal absent from the vote.]

**F. Discuss Recommendations from Budget Committee on Proposed 2019 Operating Budget**

Budget Committee chair McDonald Black reported that the committee met on March 23 and April 25 and developed the proposed 2019 operating budget for the Commission. She presented the proposed budget and explained areas where there were significant changes from the 2018 budget. She noted the committee is proposing a 2.9% increase in assessments over this year. She also clarified that the operating budget and CIP are two separate budgets and sought feedback from commissioners and TAC members.

Administrator Jester reminded the committee that the final proposed budget should be approved no later than the June meeting because it is due to cities by July 1 to receive their input.

MOTION: Commissioner Scanlan moved to approve the 2019 operating budget as presented. Commissioner Fruen seconded the motion.

Commissioner Welch indicated he would like another month to review it. Commissioner Prom agreed and noted he wanted to make sure public funds were being spent appropriately.

VOTE: A roll call vote was taken with the cities of Plymouth, St. Louis Park, and Minneapolis voting against the motion and five cities voting for the motion. The motion carried 5-3, with the City of Crystal absent from the vote.

**G. Discuss Interest and Possibility of Inviting Commissioners to Participate in Bassett Creek Deep Tunnel Inspection**

This item was moved to next month’s meeting.

**H. Receive Update on Watershed Based Funding Pilot Program**

Administrator Jester noted that she and Alternate Commissioner Monk and Engineer Chandler attended the official convene meeting hosted by Hennepin County. The outcome of this meeting was shared in item E above.

**I. Receive Update on Zebra Mussel Surveys on Medicine Lake**

Administrator Jester reviewed an email from Three Rivers Park District (TRPD) staff, Brian Vlach, regarding new information on zebra mussels. It was noted that on Saturday April 28th, 18 Plymouth and Medicine Lake residents gathered to learn zebra mussel identification and then inspected docks that were pulled on shore for the winter around the entire lake. No mussels were found during that survey. Staff with TRPD performed a shoreline/shallow water survey around the lake and they found one adult zebra mussel close to the outlet channel and it was attached to a native mussel. Mr. Vlach reported he contacted the MDNR with the results. The MDNR recommended not performing a SCUBA survey at this time and that a treatment of zebra mussels in the lake was not warranted because there was not a truly localized population. The MDNR may perform SCUBA surveys later in the summer and recommended installing sampler plates around the lake.

