Commissioners and city staff present:

<table>
<thead>
<tr>
<th>City</th>
<th>Commissioner</th>
<th>Alternate Commissioner</th>
<th>Technical Advisory Committee Members (City Staff)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystal</td>
<td>Guy Mueller, Vice Chair</td>
<td>Tim Wodarski</td>
<td>Mark Ray</td>
</tr>
<tr>
<td>Golden Valley</td>
<td>Stacy Harwell, Treasurer</td>
<td>Absent</td>
<td>Jeff Oliver</td>
</tr>
<tr>
<td>Medicine Lake</td>
<td>Clint Carlson</td>
<td>Absent</td>
<td>Absent</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>Michael Welch</td>
<td>NA</td>
<td>Absent</td>
</tr>
<tr>
<td>Minnetonka</td>
<td>Mike Fruen</td>
<td>Absent</td>
<td>Absent</td>
</tr>
<tr>
<td>New Hope</td>
<td>Absent</td>
<td>Pat Crough</td>
<td>Absent</td>
</tr>
<tr>
<td>Plymouth</td>
<td>Jim Prom (voting member during second half)</td>
<td>John Byrnes (voting member first half)</td>
<td>Derek Asche</td>
</tr>
<tr>
<td>Robbinsdale</td>
<td>Michael Scanlan, Secretary</td>
<td>Absent</td>
<td>Richard McCoy, Marta Roser</td>
</tr>
<tr>
<td>St. Louis Park</td>
<td>Jim de Lambert, Chair</td>
<td>Absent</td>
<td>Erick Francis</td>
</tr>
</tbody>
</table>

Staff and Others Present:

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
<td>Laura Jester, Keystone Waters</td>
</tr>
<tr>
<td>Engineer</td>
<td>Karen Chandler and Greg Wilson, Barr Engineering</td>
</tr>
<tr>
<td>Recorder</td>
<td>Dawn Pape, Lawn Chair Gardener</td>
</tr>
<tr>
<td>Legal Counsel</td>
<td>Troy Gilchrist, Kennedy &amp; Graven</td>
</tr>
<tr>
<td>Presenters/ Guests/Public</td>
<td>Seth Bossert and Ed Matthiesen, Wenck Engineering</td>
</tr>
</tbody>
</table>
1. CALL TO ORDER AND ROLL CALL
   On Thursday June 15, 2017 at 8:33 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.

2. CITIZEN FORUM ON NON-AGENDA ITEMS
   None.

3. APPROVAL OF AGENDA
   A request was made to put business agenda item 5B. before 5A.
   
   **MOTION:** Commissioner Michael Welch moved to approve the agenda as amended. Commissioner Crough seconded the motion. Upon a vote, the motion carried 9-0.

4. CONSENT AGENDA
   No discussion.
   
   **MOTION:** Commissioner Carlson moved to approve the consent agenda and Commissioner Scanlan seconded the motion. Upon a vote, the motion carried 9-0.
   
   The following items were approved as part of the consent agenda: the April 20, 2017 and May 18, 2017 Commission Meeting Minutes, the June 2017 Financial Report, the payment of invoices, approval of CSAH66 Culvert Replacement in Golden Valley, approval of Creekside Woods I & II in Plymouth.

   The general and construction account balances reported in the June 2017 Financial Report are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking Account Balance</td>
<td>$695,869.44</td>
</tr>
<tr>
<td>TOTAL GENERAL FUND BALANCE</td>
<td>$695,869.44</td>
</tr>
<tr>
<td>TOTAL CASH &amp; INVESTMENTS ON-HAND (6/7/17)</td>
<td>$2,813,585.86</td>
</tr>
<tr>
<td>CIP Projects Levied – Budget Remaining</td>
<td>($4,486,222.64)</td>
</tr>
<tr>
<td>Closed Projects Remaining Balance</td>
<td>($1,672,636.78)</td>
</tr>
<tr>
<td>2012-2016 Anticipated Tax Levy Revenue</td>
<td>$9,476.76</td>
</tr>
<tr>
<td>2017 Anticipated Tax Levy Revenue</td>
<td>$1,303,600.00</td>
</tr>
<tr>
<td>Anticipated Closed Project Balance</td>
<td>($359,560.02)</td>
</tr>
</tbody>
</table>

5. BUSINESS
   B. Receive Presentation with Results of Bassett Creek Watershed Chloride Source Assessment
   Commission Engineer Chandler introduced engineer, Greg Wilson, from Barr Engineering who gave a presentation on results of a chloride assessment project for the Bassett Creek watershed. Engineer
Wilson gave an overview of what chloride is, how it affects creeks and lakes, the monitoring results and a recommended “salt diet” that would help achieve standards.

Although chloride does occur naturally in water from the dissolution of soil, rock and mineral formations, Engineer Wilson explained that most chloride pollution comes from deicers and water softeners containing sodium chloride, magnesium chloride, and calcium chloride. Some fertilizers, dust suppressants and industrial process waters also contain these chlorides. The big difference between chloride and other pollutants is that chlorides cannot be removed once it is in the water. Chlorides are a problem because high levels of chlorides are toxic to sensitive organisms like fish, invertebrates, plants, soil quality, and pets/wildlife. Chloride also disrupts natural lake mixing and can contaminate drinking water.

The usage of salt has increased considerably on roads because it is so inexpensive. There are increasing trends in surface and groundwater concentrations, especially in more developed portions of Twin Cities. Engineer Wilson also noted that contractors tend to over apply deicers to avoid “slip and fall” lawsuits. He reported about 74% of applied chloride is retained in the watershed and that the chronic standard for surface water is 230 mg/L (four-day average no more than one sample exceedance within 3-year period).

Engineer Wilson showed the chloride impairments of the Bassett Creek watershed’s lakes and streams. He reported that Spring Lake (a very small lake near the intersection of Hwy 100 and Hwy 394) has the highest levels in the state. Bassett Creek has the highest chloride concentrations of the Twin Cities stream monitored by the Met Council. While the Commission is doing well with reducing total suspended solids and total phosphorus, chlorides are increasing.

Engineer Wilson reported that chloride samples for this assessment project were taken on February 20-21, 2017 because it rained and everything was flowing. Sample sites were generally located near high density development and levels ranged from 106 mg/L in the upper part of Plymouth Creek to 406 mg/L on the east side of Medicine Lake. Engineer Wilson explained that the monitoring results are a “snapshot in time” because 18 sites were sampled within a 24-hour period. He also noted that the Met Council stream monitoring results show chloride levels were two-thirds of the standard (230 mg/L) in the fall before the start of winter, indicating that there are already considerable chloride levels present in the groundwater from past years of high chloride use.

Commissioner Harwell pointed out that single-family homes are a problem too. Engineer Wilson agreed, but maintained that effort to control chlorides around higher density pavement will yield better returns on chloride reductions. The overall percentage of higher-density land use in Bassett Creek Watershed is 4.7 times the percentage in the Twin Cities metro area. Engineer Wilson has worked with Nine-Mile Creek Watershed District, which is similar in its land use to the Bassett Creek watershed, and expects that 40% of the chloride load is coming from private and commercial applicators. Often commercial applicators get paid by the pound of salt they apply.

Commissioner Fruen raised the topic of limited liability laws. There was a discussion regarding a bill in front of the legislature this session to remove liability for private practice, but it did not go anywhere. New Hampshire does have a law that removes liability. Attorney Troy Gilchrist commented that this potential new law isn’t a silver bullet because companies, if sued, will still put the burden of proof on applicators to prove application was appropriate to remove ice and snow. He maintained that education is critical.

Administrator Jester reported that BCWMC is hosting a chloride education workshop on Friday, October 13, 2017 targeting private applicators. She noted it would be good to get help from TAC members to get
the right people in the room.

[Commissioner Prom arrives at 9:25 and becomes the Plymouth voting member.]

The question was raised about what would happen if chloride use could be “turned off” now? Engineer Wilson responded that chloride would continue to go up for a while because there are still high concentrations in the environment but it would eventually flush through the waters and levels would go down.

A. Consider Approval of 60% Design Plans for Plymouth Creek Restoration Project (CIP 2017CR-P)

Engineer Chandler reviewed the 60% design plans for the Plymouth Creek Restoration Project, prepared by Wenck Associates under contract with the City of Plymouth. She noted there are 21 sites identified for restoration with a recommended approach for each site laid out in the feasibility report. Engineer Chandler noted that a helpful table was prepared by Wenck showing how the feasibility report was followed and if there was deviation from the feasibility report, they explained how and why changes were made. The reach is 2,500 feet long and the recommendation is to use both soft (vegetative) and hard (rock) armoring. Engineer Chandler walked through the comments including questions/suggestions about plant selections, and needing to show in modeling that there is not an increase in flooding if there is floodplain filling. Engineer Chandler recommended approval of the 60% design plans.

[Mike Fruen departs at 9:34 a.m.]

Wenck Engineer, Ed Matthiesen, explained that he used the XP-SWMMM model in developing these plans and discussed the proposed plans to raise the bed of the stream in one section which would increase the flood level, but since the project is all on city property there shouldn’t be a problematic flooding risk. He said the plans show this raising of the stream bed to avoid excavation in the wetland and the resulting permitting costs. He also talked about removing as few trees as possible and noted a shade-tolerant fescue will need to be planted to handle the shady growing conditions. Commissioner Prom wondered what kinds of trees will be kept and removed. Mr. Matthiesen replied that only the “leaners” (leaning into the creek that would eventually fall in and become an obstruction) and the “sweepers” that have branches over the water would be removed. Seth Bossert, from Wenck, said a complete tree survey was done beforehand. They looked at significant trees from a disc golf standpoint and channel maintenance standpoint. He reported that Plymouth city foresters are in favor of the plan and that their main concern is the damage frisbees are doing to trees. The Commission asked that the final plans include the tree survey. When asked about wetlands, Derek Asche reported that the wetland in the project area is of poor quality, filled with reed canary grass.

Wenck engineers noted that the disc golf course is a design challenge especially since the golfers have trampled vegetation to retrieve disks.

Engineer Chandler wondered if the tall cross vanes would be a concern for aquatic life passage and if the improvements will improve in-stream habitat. Mr. Matthiesen explained that in-channel vanes would improve in-stream habitat because they will channel the flow. This is particularly good for dry times. He noted that habitat for macroinvertebrates would improve, but not necessarily for fish. Mr. Matthiesen noted that he has installed these features before and they have worked.

Commissioner Clint Carlson asked whether Plymouth is happy with the design. Derek Asche responded that he is happy. There is more value than just reduced total phosphorus and total suspended solids loads, habitat is also being improved.
Derek replied that creative solutions would be needed to manage the traffic flow near the creek until the vegetation is established. Mr. Matthiesen added that trees are damaged by discs so protective poles by trees might be a good option.

Commissioner Mueller commended the plan, but asked what happens when the log vane deteriorates. Mr. Matthiesen added that it will start maintaining itself when some sedimentation occurs and volunteer vegetation grows.

Commissioner Welch asked if the plans show the same or better pollution reduction than the feasibility study estimated. Engineer Chandler responded that she did not review the plans for those specific numbers, but expected the numbers to be similar. Commissioner Welch added that those estimates need to be included for the 90% plans.

Commissioner Harwell questioned if the project costs should be shared with the disc golf course and how the vegetation will be protected. She further questioned if the Commission is spending more and going above and beyond due to the special situation of the disc golf course. Engineer Chandler responded that the feasibility study included considerations for working around the disc golf challenges. Commissioner Harwell requested that the disc golf-related improvements and costs be differentiated on the final plans and in the table of project costs. Commissioner Harwell also asked if educational signage in the park and golf course would be part of the project. Mr. Asche agreed that it is not the Commission’s job to do park beautification. He mentioned that boy scouts or girl scouts could develop signage to help educate park users. Ms. Chandler added that $4,000 for educational signage is already included in the project budget. Commissioner Welch supports and encourages Administrator Jester to be involved with educational signage, but noted that vegetation trampling will still occur.

Mr. Asche also noted that the Commission should consider requiring cost sharing from cities on all CIP projects.

Administrator Jester announced that the City and Commission are holding a public open house on Monday June 26, 2017 from 4:00 – 6:00 p.m. at Plymouth City Hall.

[Commissioner Harwell departs at 10:11 a.m.]

**MOTION:** Commissioner Welch moved to approve the 60% plans with Commission Engineer comments and input from the Commission at this meeting; and to authorize the City to finalize the plans. Commissioner Prom seconded the motion. Upon a vote, the motion carried 8-0. [The City of Golden Valley Was absent from the vote.]

6. **COMMUNICATIONS**
   A. Administrator’s Report
      i. Administrator Jester reported that volunteers to represent the Commission will be needed on Sept. 16 at the Golden Valley Arts and Music Festival. Commissioners Scanlan, Welch and de Lambert stepped forward to volunteer.
      ii. Engineer Chandler, Mark Ray and Administrator Jester will attend a June 20 County Commission committee meeting on the proposed plan amendment and 2018 maximum levy.

B. Chair
   i. The Great River Greening June 3 restoration event at the Westwood Nature went well. Commissioner Welch mentioned there was applause for BCWMC efforts.
C. Commissioners
   i. Report on Westwood Nature Center Event
      1. (See above.)
   ii. Commissioner Welch relayed good news about stormwater reuse’s exemption from DNR permitting. These projects will be easier to do in the future.
   iii. Commissioner Carlson went on the Watershed Partners Mississippi River Boat Tour. He recommends that others take the opportunity to join future tours because it was enjoyable and educational. He learned about the 1982 Surface Water Management Act.

D. TAC Members
   i. No report

E. Committees
   i. APM/AIS Committee meeting will be on June 28, 2017 at 8:30 a.m. at the Golden Valley City Hall.

F. Legal Counsel
   i. Attorney Gilchrist announced that the BCWMC will be named in a registration action in Minneapolis because Bassett Creek runs beneath this block through a tunnel. The title examiner named BCMWC because of the name of the creek, but the land above is likely within the MWMO’s jurisdiction, not BCWMC’s.

G. Engineer
   i. Engineer Chandler reviewed a table showing MIDS in linear projects and the table indicates that a lower trigger of 0.5 acre would have resulted in no difference in the required treatment for the linear projects reviewed by the BCWMC to-date. Ms. Chandler’s recommendation is to wait a year, collect more data and reassess the situation. Commissioner Mueller stated that he finds it acceptable to wait a year, although he noted significant concerns with the Commission’s action in May. Commissioner Mueller distributed written remarks outlining his concerns. Commissioner Welch suggested that the Commission Engineer keep a special file/data on linear projects to update the table in June 2018. It was also noted that Commissioner Mueller’s comments would be included in the July meeting packet under “information only.”

7. INFORMATION ONLY (Information online only)
   A. CIP Project Updates: Now Available Online http://www.bassettcreekwmo.org/projects
   B. Grant Tracking Summary and Spreadsheet
   C. West Metro Water Alliance (WMWA) Spring Newsletter https://content.govdelivery.com/accounts/MNHENNE/bulletins/19d00bc
   D. Harrison Neighborhood Project Update January – April 2017
   E. Old Bassett Creek Tunnel in the News https://www.mprnews.org/story/2017/05/30/engineers-consider-old-minneapolis-storm-tunnels-future
   F. WCA Notice of Decision, Agora Project, Plymouth

7. ADJOURNMENT

The meeting was adjourned at 10:42 a.m.

________________________________________             ______________________________________________
Signature/Title            Date    Signature/Title            Date