



## Bassett Creek Watershed Management Commission

### MEMO

To: BCWMC Commissioners  
 From: Laura Jester, Administrator  
 Date: August 8, 2018

**RE: Status of 2018 Operating Budget and Recommendation**

**BACKGROUND:**

At their meeting in August 2017, the BCWMC adopted the [FY2018 Operating Budget](#). In a memo reviewed at their meeting in [February 2018](#), the Commission was informed that the “second half” of the Sweeney Lake Aeration Study (2018 costs of \$24,204) was inadvertently left out of the 2018 budget. The memo also noted that review of local plans in 2018 would not be covered by the \$8,000 budgeted in 2018 due to all 9 local plans being submitted in 2018. At the February meeting, the Commission approved a request to allow a “carryover” of \$3,444 from the 2017 Water Quality Monitoring budget line and \$6,165 from the 2017 Municipal Plan Review budget line to those items in 2018.

**CURRENT STATUS:**

While most areas of the BCWMC 2018 Operating Budget are on track to remain within budget for the year, there are some areas where there has been or there is likely to be significant expenses over the budgeted amount.

Sweeney Lake Aeration Study – In addition to the \$20,760 (\$24,204 - \$3,444) initial 2018 budget deficit for this project, there have been significant and unexpected expenses related to this project amounting to \$28,200 (including some activities not yet billed). Below is a detailed explanation of why the project is over budget. The Commission Engineer identified work totaling \$4,700 that will be covered by Barr, including time to learn the new model and some other expenses. Additionally, the City of Golden Valley has offered to cover some of the costs related the expanded citizen engagement activities, totaling \$5,000.

That brings the total 2018 budget deficit for this project to \$39,260.

Initial Budget Deficit	\$20,760
Activities Over Budget	+ \$28,200
Barr Engineering Costs	- \$4,7000
Golden Valley Contribution	- \$5,000
<b>TOTAL BUDGET DEFICIT</b>	<b>\$39,260</b>

The Commission Engineer is requesting an additional \$18,500 to cover the costs of the activities over budget. (This amount accounts for Barr costs and the Golden Valley contribution). The Commission Engineer provided the following information regarding the Sweeney Lake Aeration Study:

The modeling effort took longer than originally anticipated:

- 3D models previously available and used by Barr Engineering (DYRESM, and ELCOM-CAEDYM) are no longer supported and available. These models had aeration modules but since the models are no longer available and supported it would be difficult to obtain them and there was risk that they would not run on modern operating systems. As a result, a different model was needed.
- We next looked into using CE QUAL W2, which has an aeration module, but it is not publicly available. The author of the module at Virginia Tech was not publicly providing the module at the time that this current study was conducted. In addition, CE QUAL W2 is a two-dimensional model so we didn't think it would adequately account for what is a three-dimensional problem.
- The only models that could be used for the Sweeney Lake study included AEM3D (the model used) and DELFT3D. DELFT3D is an extremely complex model and takes a significant effort to set up and run. We chose to use AEM3D because we had professional contact with the model developer.
- The AEM3D model took time to learn and troubleshoot—this model has just recently been developed and there were some code errors in the model that Barr identified and the model developer had to fix. The project paid \$560 to the model developer to ensure that changes were made in a timely manner.
- The AEM3D model took longer to run since it had to have very fine bathymetric grid to accommodate the complex aeration system at Sweeney Lake. The fine bathymetric grid extended the run time of the model to 36 hours. To expedite the calibration and modeling, we had to run the model on multiple machines, which required significantly more time for pre- and post-processing.

The citizen engagement part of the work took more effort than anticipated:

- The “planning” meeting with Golden Valley and MDNR staff, Golden Valley commissioners and the Sweeney Lake association president was a bigger meeting that took more effort than expected.
- The fact sheet expanded from the expected two pages to four pages.
- The re-review of previously-reviewed aeration studies and review of not-previously-reviewed aeration studies was not part of the anticipated work scope.
- In general, there was more coordination with, and questions from, the residents. (In the end, this is a good thing!)

Non-Fee/Preliminary Reviews – This was a new budget item in 2015 and is used to cover reviews for which either we do not receive an application fee or it's too early in the process for us to have received an application fee (such as the Blue Line LRT, SWLRT, MnDOT projects, etc.). Through agreements with Met Council, some of these costs are recovered each year.

This budget line is currently \$2,100 over budget (after accounting for \$2,000 still owed to the Commission for worked related to Blue Line LRT).

If trends continue, this budget item may end up being **\$12,000 over budget**.

Review Municipal Plans – This item is used to review the local water management plans that will be submitted by each city this year. This has been a budget line for the past few years as staff believed some local plans would be submitted following Watershed Plan approval in 2015. However, no cities submitted local plans until this year. As noted above, \$6,165 was approved to be carried over from 2017 to 2018 for this budget item, however that “carry over” still comes from this year’s budget. So far, only three local plans have been reviewed (2 during an official review period and 1 through pre-official review). This item will be well over budget by the end of the year – **by as much as \$19,000.**

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There are budget lines that are expected to be under budget for the year where work is already complete or no costs are expected (see table below).

<b>SUMMARY OF OVER BUDGET ITEMS</b>	
Sweeney Lake Aeration Study	\$39,260
Non-Fee/Prelim Reviews	\$12,000
Review Local Plans	\$19,000
<b>SUB-TOTAL OVER BUDGET</b>	<b>\$70,260</b>
<b>UNDER BUDGET ITEMS</b>	
Surveys and Studies	\$12,000
Watershed Inspections	\$1,000
XP-SWMM Updates	\$1,082
TMDL Implementation	\$5,332
Publications/Annual Report	\$563
Public Communications	\$1,500
<b>SUB-TOTAL UNDER BUDGET</b>	<b>\$21,477</b>
<b>TOTAL LIKELY BUDGET DEFICIT</b>	<b>\$48,783</b>

**RECOMMENDATION:**

1. Approve additional Commission Engineer expenses of \$18,500 for the Sweeney Lake Aeration Study.

2. Acknowledge the budget situation and monitor future activities and expenditures closely. At this time, I do not recommend a budget amendment. The over budget costs will result in a lower fund balance. Fiscal policies recommend the fund balance stay approximately 50% of annual operating costs. An over budget amount of \$48,783 would lower the fund balance to approximately \$323,662 at the end of the fiscal year. This is approximately 47% of annual operating costs.

Alternatively, the Budget Committee consider a budget amendment and/or other ways in which to address this situation.