



Mr. Jim de Lambert  
Bassett Creek Watershed Management Commission  
7800 Golden Valley Road  
Golden Valley, MN 55427

Page # 1  
Invoice # 23270051-2017-11  
Project # 23/27-0051  
Client # 59  
January 5, 2018

Invoice of Account with  
BARR ENGINEERING COMPANY

For professional services during the period of  
December 2, 2017 through December 29, 2017

**ENGINEERING**

TECHNICAL SERVICES

Medicine Lake zebra mussels: prepare for and attend December 7 meeting with MAISRC staff and administrator regarding recommended steps for Medicine Lake zebra mussels, prepare meeting notes, and communications with Golden Valley and MPRB staff regarding potential zebra mussel conveyance from Medicine Lake to Wirth Lake via Bassett Creek; re-send Phase 2 XPSWMM model to TRPD consultant; provide In design water quality report files to administrator; communications with Minneapolis staff and administrator regarding city's draft updated NPDES Phase I permit; communications with administrator regarding 2018 stream monitoring budget; FEMA modeling: review surveying estimates from survey firm, communications with MDNR staff regarding work scope and budget, and revise work scope and budget and provide draft to MDNR staff for review; locate and provide available electronic versions of flood control project documents to administrator; meeting with administrator regarding miscellaneous topics; review staff evaluation comments; and respond to Minneapolis staff's question regarding TALU implications for Bassett Creek fish impairment.

Karen L. Chandler, Principal Engineer/Scientist 23.4 hours @ \$170.00 per hour .....	\$ 3,978.00
Gregory J. Wilson, Consultant/Advisor 2.4 hours @ \$155.00 per hour .....	\$ 372.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 7.0 hours @ \$130.00 per hour .....	\$ 910.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 7.0 hours @ \$130.00 per hour .....	\$ 910.00
Sterling G. Williams, Engineer/Scientist/Specialist III 0.5 hours @ \$130.00 per hour .....	\$ 65.00
Ross S. Mullen, Engineer/Scientist/Specialist II 6.0 hours @ \$95.00 per hour .....	\$ 570.00

Joshua R. Vosejka, Engineer/Scientist/Specialist I 1.2 hours @ \$80.00 per hour .....	\$	96.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.6 hours @ \$75.00 per hour.....	\$	45.00
Technicians/Administrative.....	\$	<u>180.00</u>
<i>Subtotal, Technical Services.....</i>	\$	<i>7,126.00</i>

**MONTHLY MEETING PREPARATION**

Communications/coordination with administrator regarding draft/final agenda and meeting packet for December Commission meeting; prepare draft memo regarding response to zebra mussel infestation in Medicine Lake and provide to administrator for review, communications with MAISRC staff to obtain information for memo, revise memo per administrator review, provide final memo to administrator for December Commission meeting; review/edit P8 hot spots and pond prioritization presentation for December Commission meeting; prepare for December Commission meeting, including setting up and attending pre-meeting conference call with Chair de Lambert and administrator; and coordination and communications with administrator and internal staff regarding follow-up items from December Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 2.0 hours @ \$190.00 per hour .....	\$	380.00
Karen L. Chandler, Principal Engineer/Scientist 29.8 hours @ \$170.00 per hour .....	\$	5,066.00
Erin Anderson Wenz, Consultant/Advisor 1.2 hours @ \$160.00 per hour .....	\$	192.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 2.8 hours @ \$130.00 per hour .....	\$	364.00
Technicians/Administrative.....	\$	<u>475.00</u>
<i>Subtotal, Monthly Meeting Preparation.....</i>	\$	<i>6,477.00</i>

***Subtotal Technical Services .....\$ 13,603.00***

**PLAT REVIEW**

**Ridgedale Corner Shoppes (2016-34)**

Review revised resubmittal; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist [MOVE TO ITEM ABOVE] 1.0 hours @ \$190.00 per hour .....	\$	190.00
Josh P. Phillips, Engineer/Scientist/Specialist I 1.0 hours @ \$75.00 per hour.....	\$	<u>75.00</u>
<i>Subtotal, Ridgedale Corner Shoppes.....</i>	\$	<i>265.00</i>

GV/MPLS Interceptor Rehab (2017-11)

Project closeout and filing.

Josh P. Phillips, Engineer/Scientist/Specialist I  
0.3 hours @ \$75.00 per hour..... \$ 22.50  
*Subtotal, GV/MPLS Interceptor Rehab..... \$ 22.50*

CSAH 66 Culvert Replacement (2017-19)

Communications regarding revised submittal; and review project status and drawings.

James P. Herbert, Principal Engineer/Scientist  
1.0 hours @ \$190.00 per hour ..... \$ 190.00  
*Subtotal, CSAH 66 Culvert Replacement..... \$ 190.00*

Shelard Village Site Improvements (2017-30)

Project closeout and filing.

Josh P. Phillips, Engineer/Scientist/Specialist I  
0.2 hours @ \$75.00 per hour..... \$ 15.00  
*Subtotal, Shelard Village Site Improvements..... \$ 15.00*

Theodore Wirth Trail Construction (2017-32)

Project closeout and filing.

Josh P. Phillips, Engineer/Scientist/Specialist I  
0.2 hours @ \$75.00 per hour..... \$ 15.00  
*Subtotal, Theodore Wirth Trail Construction..... \$ 15.00*

Westwood Hills Park-SLP WCA (2017-34)

Send WCA Notice of Decision for wetland delineation approval.

Karen S. Wold, Engineer/Scientist/Specialist II  
0.6 hours @ \$120.00 per hour ..... \$ 72.00  
*Subtotal, Westwood Hills Park-SLP WCA..... \$ 72.00*

Golden Valley Road Senior Living (2017-35)

Project closeout and filing.

Josh P. Phillips, Engineer/Scientist/Specialist I  
0.8 hours @ \$75.00 per hour..... \$ 60.00  
*Subtotal, Golden Valley Road Senior Living..... \$ 60.00*

TMS Johnson Parking Lot Addition (2017-38)

Project closeout and filing.

Josh P. Phillips, Engineer/Scientist/Specialist I  
 0.4 hours @ \$75.00 per hour..... \$ 30.00  
*Subtotal, TMS Johnson Prkg Lot Addition..... \$ 30.00*

Quail Ridge Drainage Improvements (2017-39)

Review revised grading, drainage and erosion control plans; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist  
 1.0 hours @ \$190.00 per hour ..... \$ 190.00  
 Josh P. Phillips, Engineer/Scientist/Specialist I  
 1.6 hours @ \$75.00 per hour..... \$ 120.00  
*Subtotal, Quail Ridge Drainage Improvements ..... \$ 310.00*

***Subtotal Plat Review.....\$ 979.50***

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications regarding Dallas West development in Plymouth; communications with Golden Valley city staff regarding project in city; communications with consultant regarding proposed project; preliminary review and communications with Plymouth staff regarding proposed TH 55 frontage road improvement and water quality treatment options; preliminary review of Ford Road Mill and Overlay project for City of Minnetonka and communications with city staff; and communications with consultant and Minnetonka city staff regarding Ridgedale Apartments project, and attend December 18 meeting with consultant and city staff.

James P. Herbert, Principal Engineer/Scientist  
 3.3 hours @ \$190.00 per hour ..... \$ 627.00  
 Josh P. Phillips, Engineer/Scientist/Specialist I  
 2.8 hours @ \$75.00 per hour..... \$ 210.00  
***Subtotal, Preliminary Communications.....\$ 837.00***

NON-FEE REVIEWS

***Subtotal Non-Fee Reviews .....\$ 0.00***

***Subtotal Preliminary Communications and Non-Fee Reviews .....\$ 837.00***

COMMISSION AND TAC MEETINGS

Attend December 21 Commission meeting, including presentation of P8 modeling and pond prioritization results, and provide technical assistance for zebra mussels agenda item.

Karen L. Chandler, Principal Engineer/Scientist 3.8 hours @ \$170.00 per hour .....	\$ 646.00
Gregory J. Wilson, Consultant/Advisor 3.0 hours @ \$155.00 per hour .....	\$ 465.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 2.6 hours @ \$130.00 per hour .....	\$ 338.00
Expenses (Mileage) .....	\$ 30.50
<b>Subtotal, Commission and TAC Meetings .....</b>	<b>\$ 1,479.50</b>

SURVEYS & STUDIES

<b>Subtotal Surveys &amp; Studies .....</b>	<b>\$ 0.00</b>
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WATER QUALITY/MONITORING

Sweeney Lake Aeration Study

Compile and review 2017 monitoring data; and communications with internal staff, Golden Valley staff and administrator regarding project schedule.

Karen L. Chandler, Principal Engineer/Scientist 1.0 hours @ \$170.00 per hour .....	\$ 170.00
Gregory J. Wilson, Consultant/Advisor 4.3 hours @ \$155.00 per hour .....	\$ 666.50
Keith M. Pilgrim, Consultant/Advisor 0.6 hours @ \$160.00 per hour .....	\$ 96.00
<i>Subtotal, Sweeney Lake Aeration Study .....</i>	<i>\$ 932.50</i>
<b>Subtotal, Water Quality/Monitoring .....</b>	<b>\$ 932.50</b>

WATER QUANTITY

Communications with internal staff regarding 2018 lake level monitoring.

Karen L. Chandler, Principal Engineer/Scientist 1.0 hours @ \$170.00 per hour .....	\$ 170.00
<b>Subtotal, Water Quantity .....</b>	<b>\$ 170.00</b>

FLOOD CONTROL PROJECT INSPECTION

Complete flood control project annual inspection report; and provide to administrator for December Commission meeting.

James P. Herbert, Principal Engineer/Scientist 6.5 hours @ \$190.00 per hour .....	\$ 1,235.00
Patrick E. Brockamp, Engineer/Scientist/Specialist I 1.4 hours @ \$90.00 per hour .....	\$ 126.00

Josh P. Phillips, Engineer/Scientist/Specialist I 0.3 hours @ \$75.00 per hour.....	\$ 22.50
Technicians/Administrative.....	\$ <u>355.50</u>
<b>Subtotal, Flood Control Project Inspection .....</b>	<b>\$ 1,739.00</b>

MUNICIPAL PLAN REVIEW

Crystal Code Review

Review revised City of Crystal code and compare to BCWMC requirements; and prepare and send comment letter to city staff.

Karen L. Chandler, Principal Engineer/Scientist 0.8 hours @ \$170.00 per hour .....	\$ 136.00
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 4.0 hours @ \$130.00 per hour .....	\$ <u>520.00</u>
<b>Subtotal, Crystal Code Review .....</b>	<b>\$ 656.00</b>

**TOTAL ENGINEERING .....** \$ **20,396.50**

<b>AIS RAPID RESPONSE PLAN</b>
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AIS RAPID RESPONSE PLAN

Prepare draft AIS Rapid Response Plan for BCWMC Priority 1 lakes (Medicine Lake, Northwood Lake, Parkers Lake, Sweeney Lake, Twin Lake, Westwood Lake, and Wirth Lake), incorporating results from interviews; internal meeting to review draft plan; and provide draft plan to administrator for review.

Karen L. Chandler, Principal Engineer/Scientist 1.7 hours @ \$170.00 per hour .....	\$ 289.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 39.1 hours @ \$130.00 per hour .....	\$ <u>5,083.00</u>
<i>Subtotal, AIS Rapid Response Plan.....</i>	<i>\$ 5,372.00</i>

**TOTAL AIS RAPID RESPONSE PLAN .....** \$ **5,372.00**

<b>ANNUAL REPORT</b>
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**TOTAL ANNUAL REPORT .....** \$ **0.00**

<b>PUBLIC COMMUNICATIONS</b>
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**TOTAL PUBLIC COMMUNICATIONS .....** \$ **0.00**

**WEBSITE**

**TOTAL WEBSITE.....\$ 0.00**

**WATERSHED OUTLET MONITORING PROGRAM (WOMP)**

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Perform flow measurement at WOMP station; download flow file and provide to MCES staff; and attend December 6 Twin Cities Water Monitoring and Data Assessment Group meeting at MCES office.

Gregory J. Wilson, Consultant/Advisor 4.5 hours @ \$155.00 per hour .....	\$ 697.50
Christopher J. Bonick, Engineer/Scientist/Specialist II 6.5 hours @ \$120.00 per hour .....	\$ 780.00
Expenses (Mileage/2WD Field/Sontek ADV).....	\$ 141.97
<i>Subtotal, Watershed Outlet Monitoring Program .....</i>	<i>\$ 1,619.47</i>
<b>TOTAL WOMP .....</b>	<b>\$ 1,619.47</b>

**CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)**

FOUR SEASONS MALL AREA WATER QUALITY PROJECT (NL-2)

Communications with administrator and developer's consultant regarding project status.

Karen L. Chandler, Principal Engineer/Scientist 0.6 hours @ \$170.00 per hour .....	\$ 102.00
<i>Subtotal, Four Seasons Mall Area Water Quality Project (NL-2).....</i>	<i>\$ 102.00</i>

DECOLA PONDS B&C IMPROVEMENT PROJECT FEASIBILITY STUDY (2019) (BC-2, BC-3, BC-8)

Update and final memo regarding threatened and endangered species; update SHPO overview map; call to US Army Corps of Engineers (USACE) staff; prepare for and attend December 8 agency meeting with MDNR, MPCA, Golden Valley and Crystal staff, and administrator, including preparation of presentation regarding concepts and background information (wetlands, tree survey, contaminated soils/sediment, threatened and endangered species, etc.); prepare and distribute minutes from agency meeting and USACE call; process tree survey GPS data; edit/update drawings and basemap; prepare for and attend December 28 meeting with MCES staff regarding project concepts; and prepare and send project email updates to administrator and city staff.

Karen L. Chandler, Principal Engineer/Scientist 2.9 hours @ \$170.00 per hour .....	\$ 493.00
Shanna R. Braun, Engineer/Scientist/Specialist III 5.0 hours @ \$130.00 per hour .....	\$ 650.00

Jennifer A. Koehler, Engineer/Scientist/Specialist III 14.6 hours @ \$130.00 per hour .....	\$	1,898.00
Brian K. Burgner, Engineer/Scientist/Specialist II 0.5 hours @ \$95.00 per hour .....	\$	47.50
Robert L. Jones, Engineer/Scientist/Specialist I 0.5 hours @ \$90.00 per hour .....	\$	45.00
Joshua R. Vosejpk, Engineer/Scientist/Specialist I 0.5 hours @ \$80.00 per hour .....	\$	40.00
Megan R. Quinlan, Engineer/Scientist/Specialist I 1.1 hours @ \$65.00 per hour .....	\$	71.50
Edward M. Anderson, Engineer/Scientist/Specialist I 1.0 hours @ \$80.00 per hour .....	\$	80.00
Technicians/Administrative.....	\$	<u>468.00</u>
<i>Subtotal, DeCola Ponds B&amp;C Feasibility Study.....</i>	\$	<i>3,793.00</i>

WESTWOOD LAKE WATER QUALITY IMPROVEMENT PROJECT FEASIBILITY STUDY

Prepare project location figure for SHPO coordination; SHPO coordination; coordinate with architect on building location; and prepare and send project updates to administrator and city staff.

Michelle A. Kimble, Engineer/Scientist/Specialist III 1.0 hours @ \$125.00 per hour .....	\$	125.00
Shanna R. Braun, Engineer/Scientist/Specialist III 2.5 hours @ \$125.00 per hour .....	\$	325.00
Rachel C. Stobb, Engineer/Scientist/Specialist I 1.0 hours @ \$75.00 per hour .....	\$	75.00
Expenses (Mileage) .....	\$	<u>10.70</u>
<i>Subtotal, Westwood Lake WQ Feasibility Study.....</i>	\$	<i>535.70</i>

BRYN MAWR MEADOWS WATER QUALITY IMPROVEMENT PROJECT FEASIBILITY STUDY (2019) (BC-5)

Communications with administrator, MPRB staff and internal staff regarding MPRB design charrettes and agency meeting; digitize wetland boundaries and begin wetland delineation report; and prepare and send project updates to administrator, city staff and MPRB staff.

Karen L. Chandler, Principal Engineer/Scientist 0.9 hours @ \$170.00 per hour .....	\$	153.00
Michelle A. Kimble, Engineer/Scientist/Specialist III 3.5 hours @ \$125.00 per hour .....	\$	437.50
Brian K. Burgner, Engineer/Scientist/Specialist II 6.5 hours @ \$95.00 per hour .....	\$	617.50
Expenses (Mileage) .....	\$	<u>12.84</u>
<i>Subtotal, Bryn Mawr Meadows Feasibility Study.....</i>	\$	<i>1,220.84</i>



**TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy) .....\$ 5,651.54**

**TMDL WORK**

TMDL IMPLEMENTATION REPORTING

Update P8 modeling inputs/outputs; develop GIS inputs and model output figures; prepare preliminary pond prioritization spreadsheet, rank results and develop pond prioritization mapping; evaluate quality assurance/quality control of P8 model; and internal communications with project staff.

Gregory J. Wilson, Consultant/Advisor  
 40.9 hours @ \$155.00 per hour ..... \$ 6,339.50

Michael B. Strong, Engineer/Scientist/Specialist II  
 4.9 hours @ \$105.00 per hour ..... \$ 514.50

Michael B. McKinney, Engineer/Scientist/Specialist II  
 15.2 hours @ \$95.00 per hour ..... \$ 1,444.00

Joshua R. Vosejpka, Engineer/Scientist/Specialist I  
 9.0 hours @ \$80.00 per hour ..... \$ 720.00

*Subtotal, TMDL Implementation Reporting* ..... \$ 9,018.00

**TOTAL TMDL WORK .....\$ 9,018.00**

**SUMMARY TOTALS**

**Total Engineering .....\$ 20,396.50**

**Total Annual Report/Website/Public Communications .....\$ 0.00**

**Total AIS Rapid Response Plan.....\$ 5,372.00**

**Total WOMP.....\$ 1,619.47**

**Total TMDL Work .....\$ 9,018.00**

**Total Capital Improvement Projects (Tax Levy).....\$ 5,651.54**

**TOTAL PAYABLE.....\$ 42,057.51**

Barr declares under the penalties of law that this account, claim or demand is just and that no part of it has been paid.

*Jim Herbers*