



resourceful. naturally.  
engineering and environmental consultants

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

Page # 1  
Invoice # 23270051-2015-10  
Project # 23/27-0051  
Client # 59  
December 04, 2015

Invoice of Account with  
BARR ENGINEERING COMPANY

For professional services during the period of  
October 31, 2015 through November 27, 2015

**ENGINEERING**

TECHNICAL SERVICES

Communications with administrator; communications with MDNR staff regarding Flood Damage Reduction grant agreement; Hennepin County pictometry: internal meeting regarding features of viewer, install ArcGIS application, and follow-up communications with Hennepin County staff; communications with administrator regarding measurement of streambank erosion; coordinate with administrator and internal staff regarding website move; provide old reports to administrator; and gather and provide BCWMC springs information to MDNR in response to request.

Karen L. Chandler, Consultant/Advisor		
10.8 hours @ \$160.00 per hour.....	\$	1,728.00
Brent A. Lindstrom, Engineer/Scientist/Specialist III		
2.4 hours @ \$125.00 per hour.....	\$	300.00
Technicians/Administrative .....	\$	475.00
<i>Subtotal, Technical Services</i> .....	\$	2,503.00

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for November 2015 meeting; review/edit draft October meeting minutes; prepare for November Commission meeting, including set up and attend pre-meeting conference call with Chair de Lambert and administrator to review meeting agenda; provide grant tracking information to administrator; and coordination and communications with administrator and internal staff regarding follow-up tasks and status of assigned tasks from November Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist		
8.5 hours @ \$175.00 per hour.....	\$	1,487.50
Karen L. Chandler, Consultant/Advisor		
12.8 hours @ \$160.00 per hour.....	\$	2,048.00

Technicians/Administrative .....	\$	17.00
Expenses (Webex) .....	\$	<u>19.21</u>
<i>Subtotal, Monthly Meeting Preparation .....</i>	\$	3,571.71

TAC PREPARATION

Prepare for November 5 TAC meeting, including communications with BCWMC legal counsel; and review/edit TAC memo for November Commission meeting.

Karen L. Chandler, Consultant/Advisor 1.7 hours @ \$160.00 per hour.....	\$	<u>272.00</u>
<i>Subtotal, TAC Preparation .....</i>	\$	272.00

PROPERTY FLOODPLAIN REVIEW

Communications with St. Louis Park staff and consultant regarding flood elevation for property in FEMA A zone.

Karen L. Chandler, Consultant/Advisor 1.9 hours @ \$160.00 per hour.....	\$	<u>304.00</u>
<i>Subtotal, Property Floodplain Review .....</i>	\$	304.00

CHANNEL MAINTENANCE FUND

Prepare memo for November 5 TAC meeting regarding Crystal's proposed channel maintenance fund work on the North Branch.

Karen L. Chandler, Consultant/Advisor 0.4 hours @ \$160.00 per hour.....	\$	64.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 3.8 hours @ \$120.00 per hour.....	\$	<u>456.00</u>
<i>Subtotal, Channel Maintenance Fund .....</i>	\$	520.00
<b><i>Subtotal Technical Services .....</i></b>	<b>\$</b>	<b>7,170.71</b>

PLAT REVIEW

Liberty Crossing (2015-18)

Communications with city staff, and internal communications regarding review of revised plans.

James P. Herbert, Principal Engineer Scientist 1.0 hours @ \$175.00 per hour.....	\$	175.00
Karen L. Chandler, Consultant/Advisor 0.4 hours @ \$160.00 per hour.....	\$	<u>64.00</u>
<i>Subtotal, Liberty Crossing .....</i>	\$	239.00

Cornerstone Creek (2015-27)

Review revised grading, drainage and erosion control plans; review geotechnical report;

communications with applicant regarding comments; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer Scientist 2.5 hours @ \$175.00 per hour.....	\$ 437.50
Candice M. Kantor, Engineer/Scientist/Specialist II 1.2 hours @ \$95.00 per hour .....	\$ <u>114.00</u>
<i>Subtotal, Cornerstone Creek.....</i>	<i>\$ 551.50</i>

239 Peninsula Road (Solar) (2015-30)

Review plans; communications with applicant; prepare review memo for November Commission meeting; and prepare approval letter to city staff.

James P. Herbert, Principal Engineer Scientist 2.0 hours @ \$175.00 per hour.....	\$ 350.00
Karen L. Chandler, Consultant/Advisor 1.0 hours @ \$160.00 per hour.....	\$ 160.00
Candice M. Kantor, Engineer/Scientist/Specialist II 2.3 hours @ \$95.00 per hour .....	\$ <u>218.50</u>
<i>Subtotal, 239 Peninsula Road (Solar).....</i>	<i>\$ 728.50</i>

1130 Angelo Drive (2015-31)

Review plans; communications with applicant; prepare review memo for November Commission meeting; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer Scientist 2.0 hours @ \$175.00 per hour.....	\$ 350.00
Karen L. Chandler, Consultant/Advisor 0.6 hours @ \$160.00 per hour.....	\$ 96.00
Candice M. Kantor, Engineer/Scientist/Specialist II 3.1 hours @ \$95.00 per hour .....	\$ <u>294.50</u>
<i>Subtotal, 1130 Angelo Drive.....</i>	<i>\$ 740.50</i>

Douglas Drive (2015-32)

Review plans, HEC-RAS (hydraulic) model of Douglas Drive crossing, water balance and pumping/infiltration system information and other submittal materials; prepare draft review memo for project; communications with administrator and Golden Valley staff regarding city's exemption request; review information from city's consultant regarding MIDS flow chart results; communications with city staff and city's consultant regarding comments on MIDS and creek crossing; and prepare for November 30 meeting with city staff and city's consultant, including communications with administrator, developing agenda, and internal meeting to review comments and MIDS approach.

James P. Herbert, Principal Engineer Scientist 3.0 hours @ \$175.00 per hour.....	\$ 525.00
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Karen L. Chandler, Consultant/Advisor 11.5 hours @ \$160.00 per hour.....	\$ 1,840.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 2.0 hours @ \$120.00 per hour.....	\$ 240.00
Candice M. Kantor, Engineer/Scientist/Specialist II 8.1 hours @ \$95.00 per hour .....	\$ 769.50
Ross S. Mullen, Engineer/Scientist/Specialist I 7.3 hours @ \$85.00 per hour .....	\$ 620.50
Technicians/Administrative .....	\$ 42.50
<i>Subtotal, Douglas Drive .....</i>	<i>\$ 4,037.50</i>
<b><i>Subtotal Plat Review.....</i></b>	<b><i>\$ 6,297.00</i></b>

NON-FEE REVIEWS AND PRELIMINARY COMMUNICATIONS

PRELIMINARY COMMUNICATIONS

<i>Subtotal, Plat Review – Preliminary Communications .....</i>	<i>\$ 0.00</i>
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NON-FEE REVIEWS

BLUE LINE LRT/BOTTINEAU TRANSITWAY

Communications with administrator and city staff regarding review of Blue Line LRT technical memos.

Karen L. Chandler, Consultant/Advisor 1.3 hours @ \$160.00 per hour.....	\$ 208.00
<i>Subtotal, Blue Line LRT/Bottineau Transitway .....</i>	<i>\$ 208.00</i>

BLUE LINE LRT WCA LGU ADMIN

Golden Valley

Review updated wetland delineation report and request additional information from Blue Line LRT wetland consultant for complete and corrected report.

Karen S. Wold, Engineer/Scientist/Specialist II 4.1 hours @ \$115.00 per hour.....	\$ 471.50
<i>Subtotal, Golden Valley.....</i>	<i>\$ 471.50</i>

Minneapolis

Review updated wetland delineation report and request additional information from Blue Line LRT wetland consultant for complete and corrected report.

Karen S. Wold, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour.....	\$ 57.50
<i>Subtotal, Minneapolis.....</i>	<i>\$ 57.50</i>

Robbinsdale

Review updated wetland delineation report and request additional information from Blue Line LRT wetland consultant for complete and corrected report.

Karen S. Wold, Engineer/Scientist/Specialist II	
4.1 hours @ \$115.00 per hour.....	\$ 471.50
<i>Subtotal, Robbinsdale.....</i>	<i>\$ 471.50</i>
<i>Total Blue Line LRT WCA LGU Admin.....</i>	<i>\$ 1,000.50</i>

SW LRT

Follow-up regarding proposed direct connection to the Bassett Creek tunnel, including internal meetings regarding watershed drainage divides and agreements, search for historical communication from MnDOT regarding agreement to revision to watershed boundaries resulting from Twins Stadium, and communications with Minneapolis staff regarding mapping and modeling issues/questions.

Leonard J. Kremer, Principal Engineer Scientist	
0.8 hours @ \$185.00 per hour.....	\$ 148.00
James P. Herbert, Principal Engineer Scientist	
1.0 hours @ \$175.00 per hour.....	\$ 175.00
Karen L. Chandler, Consultant/Advisor	
5.3 hours @ \$160.00 per hour.....	\$ 848.00
Gregory J. Wilson, Engineer/Scientist/Specialist III	
2.0 hours @ \$150.00 per hour.....	\$ 300.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II	
7.7 hours @ \$120.00 per hour.....	\$ 924.00
<i>Subtotal, SW LRT .....</i>	<i>\$ 2,395.00</i>

TH 169 Drainage Improvements (SP 2772-111)

Preliminary review of plans and applicable BCWMC requirements; and coordination and communication with MnDOT and city staff regarding comments.

James P. Herbert, Principal Engineer Scientist	
1.5 hours @ \$175.00 per hour.....	\$ 262.50
Candice M. Kantor, Engineer/Scientist/Specialist II	
0.7 hours @ \$95.00 per hour .....	\$ 66.50
Technicians/Administrative .....	\$ 42.50
<i>Subtotal, TH 169 Drainage Improvements .....</i>	<i>\$ 371.50</i>
<b><i>Subtotal Non-Fee Reviews .....</i></b>	<b><i>\$ 3,975.00</i></b>
<b><i>Subtotal Non-Fee Review and Preliminary Communication .....</i></b>	<b><i>\$ 3,975.00</i></b>

COMMISSION AND TAC MEETINGS

Attend November 5 TAC meeting and November 18 Commission meeting.

Karen L. Chandler, Consultant/Advisor	
5.1 hours @ \$160.00 per hour .....	\$ 816.00
<i>Subtotal, Commission and TAC Meetings .....</i>	<i>\$ 816.00</i>

SURVEYS & STUDIES

FLOOD CONTROL PROJECT REHABILITATION AND RESPONSIBILITIES

Prepare for and attend November 5 TAC meeting.

Leonard J. Kremer, Principal Engineer/Scientist 6.2 hours @ \$185.00 per hour.....	\$ 1,147.00
James P. Herbert, Principal Engineer Scientist 4.0 hours @ \$175.00 per hour.....	\$ 700.00
Expenses (Mileage) .....	\$ 68.39
<i>Subtotal, Flood Contract Proj Rehab &amp; Responsibilities.....</i>	<i>\$ 1,915.39</i>
<i>Subtotal, Surveys &amp; Studies.....</i>	<i>\$ 1,915.39</i>

WATER QUALITY/MONITORING

Compile summer average lake water quality graphs and prepare stream water quality data and figures for website; meeting with administrator regarding biotic index and water quality monitoring report format; and develop Schaper Pond monitoring recommendations and email to administrator.  
Westwood Lake Monitoring: QA/QC review of laboratory report and invoice.

Henry M. Runke, Principal Engineer/Scientist 0.5 hours @ \$175.00 per hour.....	\$ 87.50
Karen L. Chandler, Consultant/Advisor 1.2 hours @ \$160.00 per hour.....	\$ 192.00
Gregory J. Wilson, Engineer/Scientist/Specialist III 1.5 hours @ \$150.00 per hour.....	\$ 225.00
Sterling G. Williams, Engineer/Scientist/Specialist III 6.2 hours @ \$125.00 per hour.....	\$ 775.00
Brianna I Drake, Engineer/Scientist/Specialist I 4.2 hours @ \$75.00 per hour .....	\$ 315.00
Technicians/Administrative .....	\$ 26.00
Expenses (Pace Analytical) .....	\$ 132.00
<i>Subtotal, Water Quality/Monitoring.....</i>	<i>\$ 1,752.50</i>

WATER QUANTITY

Measure and review lake level elevations as part of the lake-gauging program.

Technicians/Administrative .....	\$ 720.00
Expenses (Mileage/2WD vehicle).....	\$ 109.80
<i>Subtotal, Water Quantity .....</i>	<i>\$ 829.80</i>

FLOOD CONTROL PROJECT INSPECTION

Prepare draft report of annual flood control project inspection, including list of needed maintenance and repairs.

James P. Herbert, Principal Engineer Scientist 1.0 hours @ \$175.00 per hour.....	\$	175.00
Patrick E. Brockamp, Engineer/Scientist/Specialist I 2.5 hours @ \$80.00 per hour .....	\$	200.00
Technicians/Administrative .....	\$	648.00
Expenses (Mileage) .....	\$	57.50
<i>Subtotal, Flood Control Project Inspection.....</i>	<i>\$</i>	<i>1,080.50</i>
<b>TOTAL ENGINEERING .....</b>	<b>\$</b>	<b>23,836.90</b>

<b>SECRETARIAL SERVICES</b>
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SECRETARIAL SERVICES EXPENSES

Expenses for postage.

Expenses (Postage).....	\$	50.98
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<b>TOTAL SECRETARIAL SERVICES EXPENSES.....</b>	<b>\$</b>	<b>50.98</b>
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<b>PLANNING</b>
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NEXT GENERATION PLAN

<b>TOTAL PLANNING (Next Generation Plan) .....</b>	<b>\$</b>	<b>0.00</b>
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<b>PLANNING (Funded through Flood Control Project Long-term Maintenance Funds)</b>
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<b>TOTAL PLANNING (Maintenance Funds).....</b>	<b>\$</b>	<b>0.00</b>
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<b>ANNUAL REPORT</b>
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<b>TOTAL ANNUAL REPORT.....</b>	<b>\$</b>	<b>0.00</b>
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<b>PUBLIC COMMUNICATIONS</b>
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<b>TOTAL PUBLIC COMMUNICATIONS .....</b>	<b>\$</b>	<b>0.00</b>
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<b>WEBSITE</b>
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<b>TOTAL WEBSITE.....</b>	<b>\$</b>	<b>0.00</b>
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**WATERSHED OUTLET MONITORING PROGRAM (WOMP)**

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Download and review stage and flow data; perform flow measurement on-site; and evaluate and adjust rating curve.

Christopher J. Bonick, Engineer/Scientist/Specialist II 10.5 hours @ \$115.00 per hour.....	\$	1,207.50
Expenses (Mileage/4WD vehicle).....	\$	97.78
<i>Subtotal, Watershed Outlet Monitoring Program.....</i>	\$	1,305.28
<b>TOTAL WOMP.....</b>	<b>\$</b>	<b>1,305.28</b>

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

CEDAR LAKE ROAD TO GOLDEN VALLEY ROAD, 2012 MAIN STEM

Review budgeting and close-out procedures for past grants; update BWSR Clean Water Fund grant tracking worksheet; communications with BWSR staff regarding revised budget for local match dollars, and prepare revised budget; internal meeting regarding grant close-out; and communications with Minneapolis staff regarding final project report.

Karen L. Chandler, Consultant/Advisor 1.2 hours @ \$160.00 per hour.....	\$	192.00
Amy R. Anderson, Engineer/Scientist/Specialist I 3.1 hours @ \$90.00 per hour .....	\$	279.00
<i>Subtotal, Cedar Lk Rd to Golden Valley Rd .....</i>	\$	471.00

HONEYWELL POND EXPANSION (2016) (BC-4)

Review 90% plan submittal package, including review of plans, H&H (XP SWMM) model, water quality (P8) model; water balance information, and other submittal materials; review MDNR permit application; prepare memo for November Commission meeting regarding 90% construction plans and provide to administrator; communications with administrator, city staff and city consultant; and prepare and send conditional approval letter regarding 90% plans.

James P. Herbert, Principal Engineer Scientist 1.8 hours @ \$175.00 per hour.....	\$	315.00
Karen L. Chandler, Consultant/Advisor 6.6 hours @ \$160.00 per hour.....	\$	1,056.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 6.6 hours @ \$120.00 per hour.....	\$	792.00
Candice M. Kantor, Engineer/Scientist/Specialist II 1.0 hours @ \$95.00 per hour .....	\$	95.00
<i>Subtotal, Honeywell Pond Expansion .....</i>	\$	2,258.00



NORTHWOOD LAKE IMPROVEMENT PROJECT (2016) (NL-1)

Review 90% plans, including review of rain garden design, water reuse system, MIDS calculator results, and other submittal materials; provide BCWMC water quality (P8) model to city’s consultant; review city consultant’s memo regarding lake levels; review MDNR permit application; prepare memo for November Commission meeting regarding 90% construction plans and provide to administrator; communications with administrator, city staff and city consultant; and prepare and send conditional approval letter regarding 90% plans.

James P. Herbert, Principal Engineer Scientist 0.5 hours @ \$175.00 per hour.....	\$ 87.50
Karen L. Chandler, Consultant/Advisor 7.3 hours @ \$160.00 per hour.....	\$ 1,168.00
Gregory J. Wilson, Engineer/Scientist/Specialist III 0.5 hours @ \$150.00 per hour.....	\$ 75.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 8.0 hours @ \$120.00 per hour.....	\$ 960.00
Candice M. Kantor, Engineer/Scientist/Specialist II 2.0 hours @ \$95.00 per hour .....	\$ 190.00
<i>Subtotal, Northwood Lake Improvement Project.....</i>	<i>\$ 2,480.50</i>

MAIN STEM CHANNEL RESTORATION, CEDAR LK RD TO DUPONT, PLUS FRUEN MILL (2017CR-M)

FEASIBILITY STUDY

Prepare for and participate in conference call with BCWMC administrator and Minneapolis staff; field visit to review concepts; revise/finalize concept design, including figures; internal team meetings; communications with MPRB and Minneapolis staff; gather data; wetland assessment: prepare for and perform wetland survey and delineation on the study reaches, download photos and process GPS data; make SHPO request; cultural resource review; Phase I soil contamination investigation: prepare for and hold Phase I site walk, including review and compilation of historic data/other information and create figures, prepare summary of Phase I site walk and estimate disturbance for Phase I assessment, prepare Appendix A, internal meetings, prepare interview questionnaire, and arrange and conduct Phase I interviews with Minneapolis staff and developer; Phase II work plan: prepare Phase II photo log, begin developing draft Work Plan, including figures, internal meeting, review contractor estimates for soil investigation, develop figures for public meeting; review draft public involvement plan; and communications with administrator.

Daniel J. Fetter, Principal Engineer/Scientist 2.8 hours @ \$195.00 per hour.....	\$ 546.00
Jeffrey T. Lee, Principal Engineer/Scientist 2.3 hours @ \$150.00 per hour.....	\$ 345.00
Karen L. Chandler, Consultant/Advisor 1.0 hours @ \$160.00 per hour.....	\$ 160.00
Jennifer L. Brekken, Engineer/Scientist/Specialist III 21.7 hours @ \$135.00 per hour.....	\$ 2,929.50

Terri A. Olson, Engineer/Scientist/Specialist III 0.4 hours @ \$125.00 per hour.....	\$ 50.00
Peter J. Hinck, Engineer/Scientist/Specialist II 11.5 hours @ \$120.00 per hour.....	\$ 1,380.00
Julie Kloss Molina, Engineer/Scientist/Specialist II 2.5 hours @ \$105.00 per hour.....	\$ 262.50
Anthony D. Neuens, Engineer/Scientist/Specialist II 13.9 hours @ \$110.00 per hour.....	\$ 1,529.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 17.1 hours @ \$120.00 per hour.....	\$ 2,052.00
Amanda K. Bohnenblust, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour.....	\$ 57.50
Michelle L. Waters, Engineer/Scientist/Specialist II 0.6 hours @ \$95.00 per hour .....	\$ 57.00
Christian E. Frias, Engineer/Scientist/Specialist II 20.0 hours @ \$95.00 per hour.....	\$ 1,900.00
Brian K. Burgner, Engineer/Scientist/Specialist I 10.5 hours @ \$90.00 per hour.....	\$ 945.00
Carly F. Lintner, Engineer/Scientist/Specialist I 31.5 hours @ \$80.00 per hour.....	\$ 2,520.00
Christopher R. Ross, Engineer/Scientist/Specialist I 17.0 hours @ \$65.00 per hour.....	\$ 1,105.00
Megan J. Wika, Engineer/Scientist/Specialist I 0.2 hours @ \$70.00 per hour.....	\$ 14.00
Joshua R. Vosejka, Engineer/Scientist/Specialist I 2.6 hours @ \$75.00 per hour .....	\$ 195.00
Technicians/Administrative .....	\$ 1,872.00
Expenses (Historical Information Gathers/Mileage-2WD/GPS System Digital Camera/Auger) .....	\$ <u>862.38</u>
<i>Subtotal, Main Stem Channel Restoration, Cedar Lk Rd to Dupont, Plus Fruen Mill.....</i>	<i>\$ 18,781.88</i>

PLYMOUTH CREEK RESTORATION, ANNAPOLIS LN TO 2,500 FT  
 UPSTREAM OF ANNAPOLIS LN (2017 CR-P)

FEASIBILITY STUDY

Prepare cost estimates for feasibility study; coordination regarding concept alternatives; prepare draft feasibility report; wetland delineation reporting; internal meetings; prepare maps and photos for Phase I field visit; revise draft Phase I write-up; determine buffer for targeted areas; and communications with administrator and Plymouth staff.

Daniel J. Fetter, Principal Engineer/Scientist 1.0 hours @ \$195.00 per hour.....	\$ 195.00
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Jeffrey T. Lee, Principal Engineer/Scientist 0.3 hours @ \$150.00 per hour.....	\$ 45.00
Karen L. Chandler, Consultant/Advisor 0.3 hours @ \$160.00 per hour.....	\$ 48.00
Peter J. Hinck, Engineer/Scientist/Specialist II 0.8 hours @ \$120.00 per hour.....	\$ 96.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 3.5 hours @ \$120.00 per hour.....	\$ 420.00
Amanda K. Bohnenblust, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour.....	\$ 57.50
Adam J. Howard, Engineer/Scientist/Specialist II 15.0 hours @ \$95.00 per hour.....	\$ 1,425.00
Michelle L. Waters, Engineer/Scientist/Specialist II 2.5 hours @ \$95.00 per hour .....	\$ 237.50
Brian K. Burgner, Engineer/Scientist/Specialist I 2.0 hours @ \$90.00 per hour .....	\$ 180.00
Kelly A. Wild, Engineer/Scientist/Specialist I 0.5 hours @ \$85.00 per hour .....	\$ 42.50
Technicians/Administrative .....	\$ 112.50
<i>Subtotal, Plymouth Creek Restoration, Annapolis Ln to 2,500 Ft Upstream of Annapolis Ln .....</i>	
	\$ 2,859.00
<b>TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy) .....</b>	<b>\$ 26,850.38</b>

<b>CAPITAL IMPROVEMENT PROJECTS (Funded through Flood Control Project Long-term Maintenance Funds)</b>
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<b>TOTAL CAPITAL IMPROVEMENT PROJECTS (Maintenance Funds) .....</b>	<b>\$ 0.00</b>
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<b>TMDL WORK</b>
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TMDL IMPLEMENTATION REPORTING

Revise P8 model inputs, run revised P8 model, and summarize model results.

Gregory J. Wilson, Engineer/Scientist/Specialist III 13.8 hours @ \$150.00 per hour.....	\$ 2,070.00
<i>Subtotal, TMDL Studies.....</i>	<i>\$ 2,070.00</i>
<b>TOTAL TMDL STUDIES .....</b>	<b>\$ 2,070.00</b>

<b>XP-SWMM PHASE II</b>
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XP-SWMM PHASE II

Plymouth Creek Modeling & Medicine Lake Direct Modeling:

Internal discussions regarding calibration event data needed for rainfall hyetograph development; assemble 2014 data used for previous studies for internal review; follow-up with TRPD regarding flow data; internal meeting regarding calibration status and next steps; review budget status; review weir and pedestrian bridge data sources; site visit to Plymouth Creek fish barrier weir (Plymouth Creek monitoring station IP2), review hydraulic rating curve for calibration at station IP2, and request additional fish barrier information to determine additional properties of the barrier (extrapolate rating curve); combine Plymouth Creek and Medicine Lake models; review preliminary model results and compare to other data sources (BCWMC Plan and FIS); work on calibration and review rainfall; begin peer review of model; update Plymouth Creek model (water capture, slope recalculating, comparison with as-builts); trouble-shoot Medicine Lake model run and updates (water capture, slope recalculating, comparison with as-builts); and internal meeting regarding resolution of precipitation/hyetographs.

Flow Monitoring North Branch Bassett Creek:

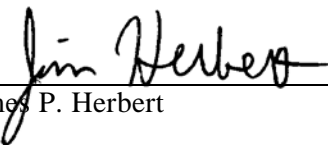
Download data; remove monitoring equipment from stream; cleanup monitoring equipment; and data review.

Jennifer A. Koehler, Engineer/Scientist/Specialist II 6.4 hours @ \$120.00 per hour.....	\$ 768.00
Christopher J. Bonick, Engineer/Scientist/Specialist II 9.0 hours @ \$115.00 per hour.....	\$ 1,035.00
Christian E. Frias, Engineer/Scientist/Specialist II 0.8 hours @ \$95.00 per hour .....	\$ 76.00
Gregory D. Fransen, Engineer/Scientist/Specialist II 1.4 hours @ \$105.00 per hour.....	\$ 147.00
Ross S. Mullen, Engineer/Scientist/Specialist I 29.2 hours @ \$85.00 per hour.....	\$ 2,482.00
Michael B. McKinney, Engineer/Scientist/Specialist I 1.2 hours @ \$75.00 per hour .....	\$ 102.00
Lulu Fang, Engineer/Scientist/Specialist I 38.3 hours @ \$75.00 per hour.....	\$ 2,872.50
Expenses (Mileage/2WD vehicle).....	\$ 41.68
<i>Subtotal, XP-SWMM Phase II.....</i>	<i>\$ 7,524.18</i>
<b>TOTAL XP-SWMM PHASE II.....</b>	<b>\$ 7,524.18</b>

<b>SUMMARY TOTALS</b>
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<b>Total Engineering .....</b>	<b>\$ 23,836.90</b>
<b>Total Secretarial Services Expenses.....</b>	<b>\$ 50.98</b>
<b>Total Planning (Next Generation Plan) .....</b>	<b>\$ 0.00</b>
<b>Total Planning (Maintenance Funds) .....</b>	<b>\$ 0.00</b>
<b>Total Annual Report/Website/Public Communications .....</b>	<b>\$ 0.00</b>
<b>Total WOMP .....</b>	<b>\$ 1,305.28</b>
<b>Total Capital Improvement Projects (Tax Levy) .....</b>	<b>\$ 26,850.38</b>
<b>Total Capital Improvement Projects (Maintenance Funds).....</b>	<b>\$ 0.00</b>
<b>Total TMDL Work .....</b>	<b>\$ 2,070.00</b>
<b>Total XP-SWMM Phase II .....</b>	<b>\$ <u>7,524.18</u></b>
<b>TOTAL PAYABLE .....</b>	<b>\$ 61,637.72</b>

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

  
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James P. Herbert