Mr. Jim de Lambert Bassett Creek Watershed Management Commission 7800 Golden Valley Road Golden Valley, MN 55427 Page # 1

Invoice # 23270051-2015-11

Project # 23/27-0051

Client # 59 January 08, 2016

Invoice of Account with BARR ENGINEERING COMPANY

For professional services during the period of November 28, 2015 through December 25, 2015

ENGINEERING

TECHNICAL SERVICES

Communications with administrator regarding meeting with Minneapolis staff regarding emergency preparedness and the BCWMC, including review of administrator's draft presentation; communications with administrator regarding construction plans; coordination with administrator regarding application forms and update forms; provide final version of requirements document to recording secretary; communications with Commissioner Mueller regarding potential CIP project at Bassett Creek Park Pond and floodplain question; communications with MDNR staff regarding BCWMC springs information; look into and respond to administrator's question regarding Hennepin county emergency management plan; review draft BCWMC website and provide comments to administrator; and communications with administrator regarding Metro Blooms grant application.

James P. Herbert, Principal Engineer/Scientist 2.5 hours @ \$175.00 per hour\$	437.50
Karen L. Chandler, Consultant/Advisor 8.5 hours @ \$160.00 per hour\$	1,360.00
Technicians/Administrative\$_	110.50
Subtotal, Technical Services\$	1.908.00

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for December 2015 meeting; review/edit draft November meeting minutes; prepare for December 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 from December Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 7.0 hours @ \$175.00 per hour\$	1,225.00
Karen L. Chandler, Consultant/Advisor	
14.0 hours @ \$160.00 per hour\$	2,240.00

Technicians/Administrative\$	444.50
Expenses (Marco Inc.)	18.73
Subtotal, Monthly Meeting Preparation\$	3,928.23
WETLAND ISSUES	
Internal meeting and meeting with administrator to discuss Commission's role on	WCA issues.
Karen L. Chandler, Consultant/Advisor 1.6 hours @ \$160.00 per hour\$	256.00
Karen S. Wold, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour\$_	57.50
Subtotal, Wetland Issues\$	313.50
Subtotal Technical Services\$	6,149.73
PLAT REVIEW Ridgedale Ctr Expansion Phase 2 (2014-04)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Ridgedale Ctr Expansion Phase 2\$	19.00
France Ave Trk Drainage Realignment (2014-13)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, France Ave Trk Drainage Realignment\$	19.00
United Rentals Site Improvements (2014-15)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$_	19.00
Subtotal, United Rentals Site Improvements\$	19.00
KIA of St. Louis Park (2014-19)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, KIA of St. Louis Park\$	19.00

Winnetka Commons (2014-21)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Winnetka Commons\$	19.00
1-GV-461 Relief Lift Station (2014-25)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, 1-GV-461 Relief Lift Station\$	19.00
Plymouth Medical Center (2015-07)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II	
0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Plymouth Medical Center\$	19.00
Crossroads Commons, 2 nd Addition (2015-09)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Crossroads Commons, 2 nd Addition\$	19.00
Plymouth Ice Center/Life Time Prkg Lot (2015-14)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II	10.00
0.2 hours @ \$95.00 per hour\$	
Subtotal, Plymouth Ice Center/Life Time Prkg Lot\$	19.00
Mini-Hops Gymnastics (2015-16)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Mini-Hops Gymnastics\$	19.00
Liberty Crossing (2015-18)	
Review revised plans; and prepare and send approval letter to city staff.	
James P. Herbert, Principal Engineer Scientist 1.0 hours @ \$175.00 per hour\$	175.00

Candice M. Kantor, Engineer/Scientist/Specialist II 3.5 hours @ \$95.00 per hour\$	332.50
Subtotal, Liberty Crossing\$	507.50
Golden Villas (2015-120)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Golden Villas\$	19.00
Henn County ACF Site Security Expansion (2015-21)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Henn County ACF Site Security Exp\$	19.00
Fretham Twenty Four 2 nd Addition (2015-22)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Fretham Twenty Four 2 nd Addition\$	19.00
Tennant Co. Site Improvements (2015-23)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Tennant Co. Site Improvements\$	19.00
Golden Villas Demolition (2015-20A)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Golden Villas Demolition\$	19.00
Plymouth Crk Christian Church Add (2015-25)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Plymouth Crk Christian Church Add\$	19.00

Sochacki Trail Paving (2015-26)	
Project closeout.	
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Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Sochacki Trail Paving\$	19.00
Cornerstone Creek (2015-27)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II	
0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Cornerstone Creek\$	19.00
<u>Legend Drive (2015-28)</u>	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
Subtotal, Legend Drive\$	19.00
239 Peninsula Road (Solar) (2015-30)	
Prepare and approval letter to city staff; and project closeout.	
James P. Herbert, Principal Engineer Scientist	
1.0 hours @ \$175.00 per hour\$	175.00
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00
•	194.00
Subtotal, 239 Peninsula Road (Solar)\$	194.00
1130 Angelo Drive (2015-31)	
Project closeout.	
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour\$	19.00

Douglas Drive (2015-32)

Attend November 30 meeting with Golden Valley staff, the city's consultant and the administrator; review revised plans and computations, including MIDS flow chart/flexible treatment options and floodplain information; internal meetings and coordination regarding review and comments; prepare review memo for December Commission meeting; communications with administrator and city's consultant; and prepare and send approval letter to city staff.

Subtotal, 1130 Angelo Drive....\$

19.00

James P. Herbert, Principal Engineer Scientist	
0.5 hours @ \$175.00 per hour\$	87.50

Karen L. Chandler, Consultant/Advisor 7.1 hours @ \$160.00 per hour\$	1,136.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 3.6 hours @ \$120.00 per hour\$	432.00
Candice M. Kantor, Engineer/Scientist/Specialist II 6.6 hours @ \$95.00 per hour\$	627.00
Ross S. Mullen, Engineer/Scientist/Specialist I 0.7 hours @ \$85.00 per hour\$	
Subtotal, Douglas Drive\$	2,342.00
Waterford Innovation Center (2015-34)	
Review plans; internal meeting regarding review; coordination with applicant; and approval letter to city staff.	prepare and send
James P. Herbert, Principal Engineer Scientist 1.5 hours @ \$175.00 per hour\$	262.50
Candice M. Kantor, Engineer/Scientist/Specialist II 3.2 hours @ \$95.00 per hour\$	304.00
Technicians/Administrative\$_	42.50
Subtotal, Waterford Innovation Center\$	609.00
Park Place Drainage Improvement (2015-35)	
Review MDNR permit application and communications with city staff.	
James P. Herbert, Principal Engineer Scientist 1.0 hours @ \$175.00 per hour\$	175.00
Candice M. Kantor, Engineer/Scientist/Specialist II 1.0 hours @ \$95.00 per hour\$	95.00
Technicians/Administrative\$	42.50
Subtotal, Park Place Drainage Improvements\$	312.50
Subtotal Plat Review\$	4,345.00
NON-FEE REVIEWS AND PRELIMINARY COMMUNICATIONS	
PRELIMINARY COMMUNICATIONS	
Subtotal, Plat Review – Preliminary Communications\$	0.00
NON-FEE REVIEWS	

BLUE LINE LRT/BOTTINEAU TRANSITWAY

Communications with administrator regarding invoice to Metro Transit.

Karen L. Chandler, Consultant/Advisor	
0.3 hours @ \$160.00 per hour\$	48.00
Subtotal, Blue Line LRT/Bottineau Transitway\$	48.00

BLUE LINE LRT WCA LGU ADMIN

Golden Valley

Attend December 8 TEP meeting; review wetland delineation documentation; prepare a draft Notice of Application, and send to city staff for review; request additional wetland delineation information from Blue Line LRT wetland consultant; review wetlands that overlap jurisdictional boundaries, provide recommendations to city staff regarding jurisdiction; revise Notice of Application and send to city staff, along with wetland delineation report; review revised wetland delineation report; obtain LGU signature and submit Notice of Application to TEP, applicant, and agent; and communications with city staff.

Karen S. Wold, Engineer/Scientist/Specialist II	
7.4 hours @ \$115.00 per hour\$	851.00
Expenses (Mileage)	12.65
Subtotal, Golden Valley\$	863.65

Minneapolis

Prepare a draft Notice of Application, and send to city staff for review; review wetlands that overlap jurisdictional boundaries, provide recommendations to city staff regarding jurisdiction; revise Notice of Application and send to city staff, along with wetland delineation report; review revised wetland delineation report; obtain LGU signature and submit Notice of Application to TEP, applicant, and agent; and communications with city staff.

Karen S. Wold, Engineer/Scientist/Specialist II	
3.2 hours @ \$115.00 per hour\$_	368.00
Subtotal, Minneapolis\$	368.00

Robbinsdale

Prepare a draft Notice of Application, and send to administrator for review; review wetlands that overlap jurisdictional boundaries, provide recommendations to city staff regarding jurisdiction; revise Notice of Application and send to city staff; obtain LGU signature and submit Notice of Application to TEP, applicant, and agent; and communications with administrator.

Karen L. Chandler, Consultant/Advisor	
0.5 hours @ \$160.00 per hour\$	80.00
Karen S. Wold, Engineer/Scientist/Specialist II	
4.0 hours @ \$115.00 per hour\$_	460.00
Subtotal, Robbinsdale\$	540.00
Total Blue Line LRT WCA LGU Admin\$	1,771.65

SW LRT

Follow-up regarding proposed direct connections to the Bassett Creek tunnel, including reviewing the existing models regarding the 50 cfs overflow to the old tunnel, reviewing Minneapolis' proposed CSO connections to the new tunnel, developing work scope and budget for modeling of proposed

SWLRT and Minneapolis connections to new tunnel, and internal meetings; prepare for, set up and attend December 18 meeting with SWLRT staff and consultant, Minneapolis staff, and administrator regarding proposed SWLRT connection and Minneapolis CSO connections, modeling approach, and next steps; and communications with administrator regarding future BCWMC SWLRT project reviews and costs.

James P. Herbert, Principal Engineer Scientist 3.5 hours @ \$175.00 per hour\$	612.50
Karen L. Chandler, Consultant/Advisor 8.5 hours @ \$160.00 per hour\$	1,360.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 7.0 hours @ \$120.00 per hour\$	840.00
Candice M. Kantor, Engineer/Scientist/Specialist II 0.3 hours @ \$95.00 per hour\$	28.50
Ross S. Mullen, Engineer/Scientist/Specialist I 0.6 hours @ \$85.00 per hour\$	51.00
Subtotal, SW LRT\$	2,892.00
SW LRT Tunnel Connection Modeling Review watershed, HydroCAD and GIS data from SWLRT and follow-up with SW compile Minneapolis CSO watersheds and communications with Minneapolis staff watersheds.	
Karen L. Chandler, Consultant/Advisor 0.5 hours @ \$160.00 per hour\$	80.00
Gregory J. Wilson, Engineer/Scientist/Specialist III 1.0 hours @ \$150.00 per hour\$	150.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 7.0 hours @ \$120.00 per hour\$	840.00
Subtotal, SW LRT Tunnel Connection Modeling\$	1,070.00
TH 169 Drainage Improvements (SP 2772-111) Coordination and communication with MnDOT.	
James P. Herbert, Principal Engineer Scientist 0.8 hours @ \$175.00 per hour\$	140.00
Subtotal, TH 169 Drainage Improvements\$	140.00
Subtotal Non-Fee Reviews\$	5,921.65
Subtotal Non-Fee Review and Preliminary Communication\$	5,921.65

COMMISSION AND TAC MEETINGS

Attend December 17 Commission meeting.

Karen L. Chandler, Consultant/Advisor	
3.1 hours @ \$160.00 per hour\$	496.00
Expenses (Mileage)	5.18
Subtotal, Commission and TAC Meetings\$	501.18

SURVEYS & STUDIES

FLOOD CONTROL PROJECT REHABILITATION AND RESPONSIBILITIES

Communications with MnDOT regarding approval for modifications to tunnel, and review files to locate contract modifications, as requested by Minneapolis staff.

Subtotal, Surveys & Studies\$	462.50
Subtotal, Flood Contract Proj Rehab & Responsibilities\$	462.50
2.5 hours @ \$185.00 per hour\$	462.50
Leonard J. Kremer, Principal Engineer/Scientist	

WATER QUALITY/MONITORING

Respond to administrator's question regarding residents' proposed carp management activities on Sweeney Lake, including internal meeting; review Twin Lake alum design in response to administrator's question; and internal communications regarding report formats. Westwood Lake Monitoring: prepare/tabulate/graph summaries of 2015 water quality data; create monitoring figure; perform phytoplankton and zooplankton analyses; summarize and graph historical zooplankton data; and begin preparing report. Stream Biotic Index Monitoring: review invertebrate data results and communications with subconsultant; subconsultant charges for invertebrate identification; internal communications regarding discharge calculations on the Main Stem at Irving Ave; organize and submit invertebrate data to MPCA submittal for computation of macroinvertebrate IBI; and communications with MPCA staff.

Henry M. Runke, Principal Engineer/Scientist 1.0 hours @ \$175.00 per hour\$	175.00
Karen L. Chandler, Consultant/Advisor 1.6 hours @ \$160.00 per hour\$	256.00
Gregory J. Wilson, Engineer/Scientist/Specialist III 1.1 hours @ \$150.00 per hour\$	165.00
Sterling G. Williams, Engineer/Scientist/Specialist III 0.8 hours @ \$125.00 per hour\$	100.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 44.3 hours @ \$125.00 per hour\$	5,537.50
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 0.5 hours @ \$75.00 per hour\$	37.50
Technicians/Administrative\$	578.00
Expenses (Dean C. Hansen)\$	4,062.50
Subtotal, Water Quality/Monitoring\$	10,911.50

WATER QUANTITY	
Look into discrepancy between MDNR and BCWMC Parkers lake water level mea	asurements.
Karen L. Chandler, Consultant/Advisor 0.2 hours @ \$160.00 per hour\$_	32.00
Subtotal, Water Quantity\$	32.00
FLOOD CONTROL PROJECT INSPECTION	
Complete final report of annual flood control project inspection for December Corincluding list of needed maintenance and repairs; and communications with admin	
James P. Herbert, Principal Engineer Scientist 3.5 hours @ \$175.00 per hour\$	612.50
Karen L. Chandler, Consultant/Advisor 3.3 hours @ \$160.00 per hour\$	528.00
Technicians/Administrative\$_	108.00
Subtotal, Flood Control Project Inspection\$	1,248.50
TOTAL ENGINEERING\$	29,572.06
SECRETARIAL SERVICES	
SECRETARIAL SERVICES EXPENSES	
Expenses for postage.	
Expenses (Postage)\$_	49.98
TOTAL SECRETARIAL SERVICES EXPENSES\$	49.98
PLANNING	
NEXT GENERATION PLAN	
TOTAL PLANNING (Next Generation Plan)\$	0.00
PLANNING (Funded through Flood Control Project Long-term Maintenance	Funds)
TOTAL PLANNING (Maintenance Funds)\$	0.00
ANNUAL REPORT	
TOTAL ANNUAL REPORT\$	0.00

PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS\$ 0.00

WEBSITE

TOTAL WEBSITE...... 0.00

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Download and review stage and flow data; and evaluate and adjust rating curve using 2015 flow measurements.

Christopher J. Bonick, Engineer/Scientist/Specialist II

TOTAL WOMP\$	1,092.50
Subtotal, Watershed Outlet Monitoring Program\$	1,092.50
9.5 hours @ \$115.00 per hour\$	1,092.50

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

CEDAR LAKE ROAD TO GOLDEN VALLEY ROAD, 2012 MAIN STEM

Communications with BWSR staff regarding budget adjustments for FY2012 Clean Water Fund grant; enter expenses in eLINK, and update activity budgets per discussion with BWSR staff.

Amy R. Anderson, Engineer/Scientist/Specialist I	
2.5 hours @ \$90.00 per hour\$_	225.00
Subtotal, Cedar Lk Rd to Golden Valley Rd\$	225.00

HONEYWELL POND EXPANSION (2016) (BC-4)

Review revised plans; prepare final comments/questions; and communications with city's consultant.

Jennifer A. Koehler, Engineer/Scientist/Specialist II	
1.6 hours @ \$120.00 per hour\$_	192.00
Subtotal, Honeywell Pond Expansion\$	192.00

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

Prepare for and conduct a technical stakeholder meeting with Commission, Minneapolis, MDNR and Corps of Engineers staff; field work to delineate wetland and waterbody; summarize notes and creation of figures to summarize wetland delineation; cultural and historical data review and write-up; complete Phase I study write up; complete Work Plan for Phase II investigation and Voluntary Remediation Program application and submit to MPCA; prepare draft feasibility report outline; and begin introduction sections of feasibility report.

Daniel J. Fetter, Principal Engineer/Scientist 12.0 hours @ \$195.00 per hour\$	2,340.00
Jeffrey T. Lee, Principal Engineer/Scientist 1.3 hours @ \$150.00 per hour\$	195.00
Karen L. Chandler, Consultant/Advisor 1.7 hours @ \$160.00 per hour\$	272.00
Jennifer L. Brekken, Engineer/Scientist/Specialist III 15.9 hours @ \$135.00 per hour\$	2,146.50
Brent A. Lindstrom, Engineer/Scientist/Specialist III 0.2 hours @ \$125.00 per hour\$	25.00
Terri A. Olson, Engineer/Scientist/Specialist III 0.5 hours @ \$125.00 per hour\$	62.50
Peter J. Hinck, Engineer/Scientist/Specialist II 6.9 hours @ \$120.00 per hour\$	828.00
Christian E. Frias, Engineer/Scientist/Specialist II 0.5 hours @ \$95.00 per hour\$	47.50
Julie Kloss Molina, Engineer/Scientist/Specialist II 2.0 hours @ \$105.00 per hour\$	210.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 10.6 hours @ \$120.00 per hour\$	1,272.00
Brian K. Burgner, Engineer/Scientist/Specialist I 4.3 hours @ \$90.00 per hour\$	387.00
Carly F. Lintner, Engineer/Scientist/Specialist I 8.6 hours @ \$80.00 per hour\$	688.00
Christopher R. Ross, Engineer/Scientist/Specialist I 4.5 hours @ \$65.00 per hour\$	292.50
James L. Lind, Engineer/Scientist/Specialist I 0.6 hours @ \$90.00 per hour\$	54.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 2.5 hours @ \$75.00 per hour\$	187.50
Technicians/Administrative\$	517.50
Subtotal, Main Stem Channel Restoration, Cedar Lk Rd to Dupont, Plus Fruen Mill\$	9,525.00

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

Site visit to check revised concept alternatives; finish development of concept alternatives; develop cost estimates for concept alternatives; georeference historical photos and delineate historical alignments; prepare wetland delineation report and summary for main body of the report; summarize conclusions from the Phase I environmental study for the main body of the report; estimate erosion and sediment loading to the creek; and draft main body of feasibility report.

Daniel J. Fetter, Principal Engineer/Scientist 1.5 hours @ \$195.00 per hour\$	292.50
Karen L. Chandler, Consultant/Advisor 0.6 hours @ \$160.00 per hour\$	96.00
Jennifer L. Brekken, Engineer/Scientist/Specialist III 1.1 hours @ \$135.00 per hour\$	148.50
Peter J. Hinck, Engineer/Scientist/Specialist II 33.5 hours @ \$120.00 per hour\$	4,020.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 16.4 hours @ \$120.00 per hour\$	1,968.00
Adam J. Howard, Engineer/Scientist/Specialist II 38.9 hours @ \$95.00 per hour\$	3,695.50
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 6.7 hours @ \$75.00 per hour\$	502.50
Christopher R. Ross, Engineer/Scientist/Specialist I 12.5 hours @ \$65.00 per hour\$	812.50
Brian K. Burgner, Engineer/Scientist/Specialist I 7.4 hours @ \$90.00 per hour\$_	666.00
Subtotal, Plymouth Creek Restoration, Annapolis Ln to 2,500 Ft Upstream of Annapolis Ln\$	12,201.50
TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$	22,143.50

CAPITAL IMPROVEMENT PROJECTS (Funded through Flood Control Project Long-term Maintenance Funds)

TOTAL CAPITAL IMPROVEMENT PROJECTS		
(Maintenance Funds)	S	0.00

TMDL WORK

TMDL IMPLEMENTATION REPORTING

Follow up on Sweeney Lake watershed monitoring; calibrate P8 model; and communications with Golden Valley staff.

TOTAL TMDL STUDIES	\$ 225 00
Subtotal, TMDL Studies	\$ 225.00
Gregory J. Wilson, Engineer/Scientist/Specialist III 1.5 hours @ \$150.00 per hour	\$ 225.00

XP-SWMM PHASE II

XP-SWMM PHASE II

Plymouth Creek Modeling & Medicine Lake Direct Modeling:

Process NEXRAD rainfall and bias-adjust for calibration/validation storms; internal meeting to review rainfall events and methodology; select precipitation event; QA/QC Phase 2 XP-SWMM model; internal meeting regarding impervious surface dataset modifications and directly connected impervious adjustments; save model file to XP-SWMM viewer for QAQC; peer review of model and rainfall watershed grouping/review; internal discussion of peer review checklist; rainfall processing and input generation; review storms and baseflow; debug small event model runs and create calibration event spreadsheet; review calibration and internal comments; brainstorm impervious updates and updates to calibration spreadsheet; test scenarios for modeling and updating the calibration spreadsheet; work on timing of flow calibration; internal meeting regarding calibration event grouping method; group subwatersheds; verify rainfall event; rainfall data pre-processing, gaging points shapefile; review water capture; initial depth adjustments; set up calibration storm; XS extension; set up storm event grouping, model test run; update model; check Parkers Lake outlet; convert storm xpx file for import to model; check slope and rainfall event; add monitored lake level to calibration model; trouble shooting; and small event calibration runs and review results. Flow Monitoring North Branch Bassett Creek:

Process final download of stage data; final QA/QC and summary of all stage data from 2015; and scan field notes.

Jennifer A. Koehler, Engineer/Scientist/Specialist II 13.2 hours @ \$120.00 per hour\$	1,584.00
Christopher J. Bonick, Engineer/Scientist/Specialist II 6.0 hours @ \$115.00 per hour\$	690.00
Gregory D. Fransen, Engineer/Scientist/Specialist II 11.0 hours @ \$105.00 per hour\$	1,155.00
Ross S. Mullen, Engineer/Scientist/Specialist I 38.8 hours @ \$85.00 per hour\$	3,298.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 2.2 hours @ \$75.00 per hour\$	165.00
Kelly R. Matson, Engineer/Scientist/Specialist I 0.2 hours @ \$90.00 per hour\$	18.00
Lulu Fang, Engineer/Scientist/Specialist I 72.6 hours @ \$75.00 per hour\$_	5,445.00
Subtotal, XP-SWMM Phase II\$	12,355.00
TOTAL XP-SWMM PHASE II\$	12,355.00

SUMMARY TOTALS

Total Engineering\$	29,572.06
Total Secretarial Services Expenses\$	49.98
Total Planning (Next Generation Plan)\$	0.00
Total Planning (Maintenance Funds)\$	0.00
Total Annual Report/Website/Public Communications\$	0.00
Total WOMP\$	1,092.50
Total Capital Improvement Projects (Tax Levy)\$	22,143.50
Total Capital Improvement Projects (Maintenance Funds)\$	0.00
Total TMDL Work\$	225.00
Total XP-SWMM Phase II\$_	12,355.00
TOTAL PAYABLE\$	65,438.04

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

James P. Herbert