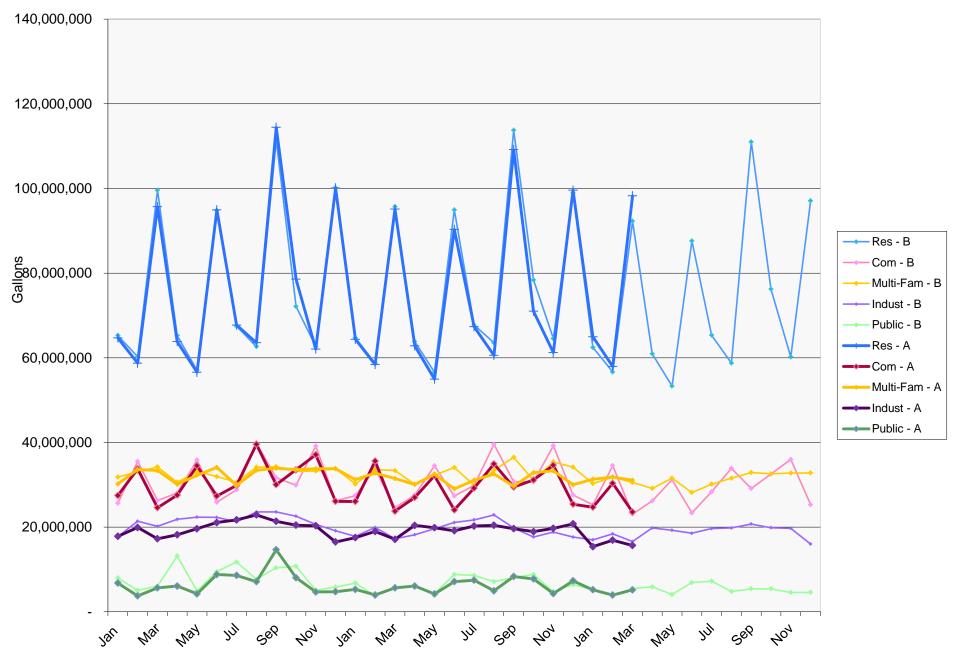
#### WAUKESHA WATER UTILITY STATEMENT OF REVENUES & EXPENSES MONTH ENDED 3/31/2018

		CURRENT MONTH					ANNUAL BUDGET		
	ACTUAL'18	BUDGET'18	VARIANCE	%	ACTUAL'18	BUDGET'18	VARIANCE	<u>%</u>	
OPERATING REVENUES:									
Residential	\$537,672.59	\$523,365.44	\$14,307.15	2.73	\$1,186,170.84	\$1,195,342.20	(\$9,171.36)	(0.77)	\$4,935,965.56
Commercial	99,092.91	100,109.95	(1,017.04)	(1.02)	327,765.11	359,404.07	(31,638.96)	(8.80)	1,511,321.72
Industrial	53,924.67	58,227.32	(4,302.65)	(7.39)	165,885.26	183,444.66	(17,559.40)	(9.57)	790,195.60
Public	21,796.06	23,085.45	(1,289.39)	(5.59)	60,023.61	61,668.61	(1,645.00)	(2.67)	302,092.85
Multi Family	127,657.90	130,232.60	(2,574.70)	(1.98)	385,587.20	401,636.73	(16,049.53)	(4.00)	1,618,382.44
Irrigation	508.30	0.00	508.30	0.00	1,972.48	0.00	1,972.48	0.00	0.00
Total Metered Sales	\$840,652.43	\$835,020.76	\$5,631.67	0.67	\$2,127,404.50	\$2,201,496.27	(\$74,091.77)	(3.37)	\$9,157,958.17
Private Fire Capacity	\$19,316.78	\$17,671.68	\$1,645.10	9.31	\$57,063.47	\$55,909.58	\$1,153.89	2.06	\$222,476.02
Public Fire Capacity	212,183.91	211,380.48	803.43	0.38	501,089.39	529,204.04	(28,114.65)	(5.31)	2,113,211.26
Other Operating Revenues	(587,652.44)	27,486.95	(615,139.39)	(2,237.93)	(536,468.89)	81,912.19	(618,381.08)	(754.93)	473,981.97
TOTAL OPERATING REVENUES	\$484,500.68	\$1,091,559.87	(\$607,059.19)	(55.61)	\$2,149,088.47	\$2,868,522.08	(\$719,433.61)	(25.08)	\$11,967,627.42
OPERATING EXPENSES:									
Source	\$50,404.85	\$50,778.77	(\$373.92)	(0.74)	\$150,849.30	\$152,336.31	(\$1,487.01)	(0.98)	\$680,345.28
Pumping	69,113.74	84,251.19	(15,137.45)	(17.97)	239,441.63	268,012.62	(28,570.99)	(10.66)	1,071,398.85
Treatment	50,594.20	56,890.66	(6,296.46)	(11.07)	98,788.06	122,671.98	(23,883.92)	(19.47)	491,137.92
Distribution	100,022.89	94,592.86	5,430.03	5.74	301,601.00	276,329.08	25,271.92	9.15	1,337,137.56
Customer Service	11,689.47	9,168.33	2,521.14	27.50	48,204.98	27,316.99	20,887.99	76.47	127,755.52
Administrative	123,886.51	153,115.00	(29,228.49)	(19.09)	454,940.21	461,201.41	(6,261.20)	(1.36)	1,584,571.00
Total	\$405,711.66	\$448,796.81	(43,085.15)	(9.60)	\$1,293,825.18	\$1,307,868.39	(14,043.21)	(1.07)	\$5,292,346.13
MANAGERS' MARGIN	78,789.02	642,763.06	(563,974.04)	(87.74)	855,263.29	1,560,653.69	(\$705,390.40)	(45.20)	6,675,281.29
Depreciation	152,047.60	152,003.45	44.15	0.03	458,983.19	456,010.35	2,972.84	0.65	1,824,041.40
Tax Equivalent	153,174.20	153,174.20	0.00	0.00	459,522.60	459,522.60	0.00	0.00	1,838,090.40
Other Taxes	12,087.16	12,124.45	(37.29)	(0.31)	38,639.63	36,373.35	2,266.28	6.23	158,227.20
TOTAL OPERATING EXPENSES	\$723,020.62	\$766,098.91	(\$43,078.29)	(5.62)	\$2,250,970.60	\$2,259,774.69	(\$8,804.09)	(0.39)	\$9,112,705.13
TOTAL OPERATING INCOME(LOSS)	(\$238,519.94)	\$325,460.96	(\$563,980.90)	(173.29)	(\$101,882.13)	\$608,747.39	(\$710,629.52)	(116.74)	\$2,854,922.29
NON OPERATING INCOME&(EXPENSE)	(144,110.71)	(196,059.79)	51,949.08	(26.50)	(276,073.44)	(414,236.23)	138,162.79	(33.35)	(467,892.24)
NET INCOME(LOSS)	(\$382,630.65)	\$129,401.17	(\$512,031.82)	(395.69)	(\$377,955.57)	\$194,511.16	(\$572,466.73)	(294.31)	\$2,387,030.05

WWU Billed Gallons Actual v Budget 2016 - 2018



#### WAUKESHA WATER UTILITY BALANCE SHEET 3/31/2018

ASSETS OUR PENT	THIS YEAR
CURRENT CASH AND INVESTMENTS	\$22 CEE OEE 00
ACCOUNTS RECEIVABLE	\$22,655,955.88 4,942,947.28
RECEIVABLE FROM SEWER REIMB	24,363.57
MATERIALS & SUPPLIES	579,117.04
OTHER CURRENT ASSETS	0.00
ACCRUED UTILITY REVENUE	0.00
TOTAL CURRENT ASSETS	\$28,202,383.77
DEFERRED DEFERRED	¢40.045.404.04
DEFERRED ASSETS TOTAL DEFERRED DEBITS	\$19,645,401.84 19,645,401.84
RESTRICTED	19,043,401.04
DEBT PAYMENT ACCOUNT	\$743,007.90
DEBT RESERVE ACCOUNT	476,136.39
CONSTRUCTION FUND	147.60
TAX EQUIV RESERVE ACCOUNT	1,073,825.26
TOTAL RESTRICTED FUNDS	\$2,293,117.15
LONG TERM	<b>#</b> 04 000 000 40
UTILITY PLANT IN SERVICE-NET PROPERTY HELD FOR FUTURE USE	\$91,368,869.40
CONSTRUCTION WORK IN PROGRESS	435,089.69 363,459.76
RESTRICTED NET PENSION	(120,942.00)
TOTAL UTILITY PLANT	\$92,046,476.85
TOTAL ASSETS	\$142,187,379.61
LIABILITIES CURRENT CUR PORTION BOND NOTES PAYABLE ACCOUNTS PAYABLE PAYABLE TO OTHER FUNDS	660,134.14 27,285,000.00 1,388,566.45 2,752,548.90
CUSTOMER DEPOSITS	187,178.16
A/P MISCELLANEOUS	0.00
TAXES ACCRUED	1,066,596.00
INTEREST ACCRUED EMPLOYEE WITHHOLDING	347,049.54 8,998.00
ACCRUED PAYROLL	42,480.00
ACCRUED VACATION	236,087.81
TOTAL CURRENT LIABILITIES	\$33,974,639.00
DEFERRED CREDITS CUSTOMER ADVANCES CONSTRUCTION	00.00
REGULATORY LIABILITY	\$0.00 1,098,858.14
OPEB LIABILITY	3,938,157.00
OTHER DEFERRED CREDITS	2,977,929.57
TOTAL DEFERRED CREDITS LONG-TERM	\$8,014,944.71
BONDS	\$27,518,907.51
EQUITY	
CAPITAL PAID IN BY MUNICIPALITY	\$2,669,743.20
EQUITY FINANCED BY UTILITY	36,520,472.56
EQUITY FROM CONTRIBUTIONS	33,170,671.20
RESTRICTED EQUITY	695,957.00
NET PROFIT (LOSS)	(377,955.57)
TOTAL EQUITY  TOTAL EQUITY AND LIABILITIES	\$72,678,888.39 \$142,187,379.61
TOTAL EQUIT AND LIABILITIES	ψ172,101,313.01

#### WAUKESHA WATER UTILITY STATEMENT OF SOURCES AND USES OF CASH PERIOD ENDING MARCH 31, 2018

Cash Balance - February 28, 2018	Cash	Balance	- February	28,	2018
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\$27,949,357

\$24,949,073

#### **SOURCES:**

USES:

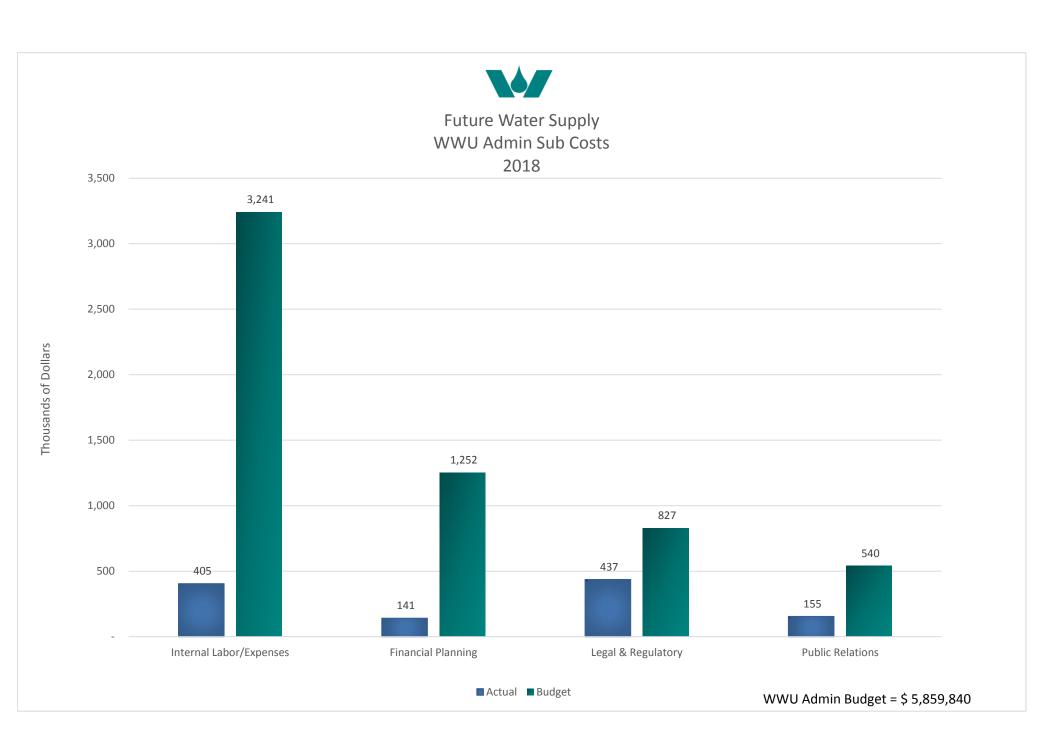
Operations: Customers - water sales Waste Water Utility - joint metering billing Rent of utility property - cellular leases Receipts on sewer bills Other - miscellaneous Total Cash From Operating Activities	\$780,503 54,083 12,028 964,384 16,493 \$1,827,492		
Capital and Related Financing Activities:			
Grants Contributions Issuance of long-term debt Sale of short-term debt Interest income Total Cash From Capital/ Investing Activities	35,549 \$43,809		
Total Cash Receipts	-	\$1,871,301	•
Salaries, wages, payroll taxes and benefits Subcontracted and outside services Disbursement to city for sewer transfer Pumping power Purchase of materials and supplies Tax equivalent - PILOT Acquisition of capital assets Debt service - principal Debt service - interest	\$340,934 38,956 2,296,150 63,336 103,513 597,876 929,308		
Total Cash Used	-	\$4,871,584	
Net Change in Cash			(\$3,000,284)

Cash Balance - March 31, 2018

# WWU TRANSMISSION AND DISTRIBUTION BUDGET VARIANCE ANALYSIS

Project #	Description/Location	Budget		Current Estimate	P.	JC Total	<u> </u>	dermanic District	Construction Completion									
	Water Main offsets to						6	Jack Wells										
MOOFOA	accommodate changes in the		_	400 540	_	40.544	7	Daniel J. Manion	Summer									
M00501			\$	198,512	\$	\$ 13,514	13	Dean Lemke	2019									
	WDOT.						14	Bill Boyle										
M00518	Replace 1,500 feet of 8-inch main from 1967 with 12-inch PVC water main on Northview Rd. between Grandview and Tallgrass, Project		\$	360,504	\$	23,443	5	Peter Bartels	September 2018									
	done with City.						14	Bill Boyle										
M00519	Replace 720 feet of 12-inch main from 1938 with 12-nch dulctile iron main on South St. from Grand to Barstow. Replace 280 feet of 6-inch main from 1909 with 8-inch ductile iron. Project done with City.		\$	395,176	\$	29,482	11	Erik Helgestad	July 2018									
M00520	Replace 1,540 feet of 6-inch from 1927 with 8-inch PVC on Fairview - Motor to St. Paul and Motor - Fairview to Washington. Project done with City.		\$	304,562	\$	4,667	2	Eric Payne	September 2018									
TBD	Extend 12" water main through easement connecting Pebble Valley and Oakmont.		\$	325,000	\$	-	14	Bill Boyle	December 2018									
Routine F	Projects	\$ 2,160,072	\$	1,583,753	\$	71,105												
				905,584														
Total Re	outine	\$ 3,065,656	\$	2,489,337	\$	976,689												
GI CD0007	Replace 2,800 feet of 8-inch from 1909 with 24-inch ductile iron on Main St. from Barstow to		\$	1 936 571	\$	\$ 32,131 -	3	Cassie Rodriguez	October									
GLOBOOT	Lombardi. Project being done with City sanitary.			1,000,071	Ψ		Ψ 32,131	Ψ 02,101	11	Erik Helgestad	2018							
GLCD0009	Replace 2,000 feet of 8-inch from 1957 with 16-inch ductile iron		\$	1,266,001	\$ 14,520	\$	\$	\$	\$ 14,520	\$ 14,520 _	\$ 14,520 .	\$ 14,520	\$ 14,520	\$ 14,520	\$ 14,520	4	Joe Pieper	October
	Michigan to Summit.																	
GLCD0010	Replace 1,160 feet of 6-inch from 1917 with 20-inch ductile iron on Motor - Fairview to Mountain and Fairview - Motor to Dopp. Project done with City.		\$	347,462	\$	12,154	2	Eric Payne	September 2018									
ribution Syster	m Improvements	\$ 4,001,241	\$	3,550,034	\$	58,805												
	M00501  M00518  M00519  M00520  TBD  Routine F Misc Ro Total Ro  GLCD0007  GLCD0009	M00501  Water Main offsets to accommodate changes in the storm sewer and roadway alignments. Project run by WDOT.  Replace 1,500 feet of 8-inch main from 1967 with 12-inch PVC water main on Northview Rd. between Grandview and Tallgrass. Project done with City.  Replace 720 feet of 12-inch main from 1938 with 12-nch dulctile iron main on South St. from Grand to Barstow. Replace 280 feet of 6-inch main from 1909 with 8-inch ductile iron. Project done with City.  Replace 1,540 feet of 6-inch from 1927 with 8-inch PVC on Fairview - Motor to St. Paul and Motor - Fairview to Washington. Project done with City.  Extend 12" water main through easement connecting Pebble Valley and Oakmont.  Routine Projects  Misc Routine  Total Routine  Replace 2,800 feet of 8-inch from 1909 with 24-inch ductile iron on Main St. from Barstow to Lombardi. Project being done with City sanitary.  Replace 2,000 feet of 8-inch from 1957 with 16-inch ductile iron main on N. Moreland Blvd. from Michigan to Summit.  Replace 1,160 feet of 6-inch from 1917 with 20-inch ductile iron on Motor - Fairview to Mountain and Fairview - Motor to Dopp. Project	Water Main offsets to accommodate changes in the storm sewer and roadway alignments. Project run by WDOT.  Replace 1,500 feet of 8-inch main from 1967 with 12-inch PVC water main on Northview Rd. between Grandview and Tallgrass. Project done with City.  Replace 720 feet of 12-inch main from 1938 with 12-nch dulctile iron main on South St. from Grand to Barstow. Replace 280 feet of 6-inch main from 1909 with 8-inch ductile iron. Project done with City.  Replace 1,540 feet of 6-inch from 1927 with 8-inch PVC on Fairview - Motor to St. Paul and Motor - Fairview to Washington. Project done with City.  Extend 12" water main through easement connecting Pebble Valley and Oakmont.  Routine Projects \$ 2,160,072  Misc Routine \$ 905,584  Total Routine \$ 905,584  Total Routine \$ 3,065,656   Replace 2,800 feet of 8-inch from 1909 with 24-inch ductile iron on Main St. from Barstow to Lombardi. Project being done with City sanitary.  Replace 2,000 feet of 8-inch from 1957 with 16-inch ductile iron main on N. Moreland Bivd. from Michigan to Summit.  Replace 1,160 feet of 6-inch from 1957 with 20-inch ductile iron on Motor - Fairview to Mountain and Fairview - Motor to Dopp. Project done with City.	Water Main offsets to accommodate changes in the storm sewer and roadway alignments. Project run by WDOT.  Replace 1,500 feet of 8-inch main from 1967 with 12-inch PVC water main on Northview Rd. between Grandview and Tallgrass. Project done with City.  Replace 720 feet of 12-inch main from 1938 with 12-nch dulctile iron main on South St. from Grand to Barstow. Replace 280 feet of 6-inch main from 1909 with 8-inch ductile iron. Project done with City.  Replace 1,540 feet of 6-inch from 1927 with 8-inch PVC on Fairview - Motor to St. Paul and Motor - Fairview to Washington. Project done with City.  Extend 12" water main through easement connecting Pebble Valley and Oakmont.  Routine Projects \$ 2,160,072 \$ Misc Routine \$ 905,584 \$ Total Routine \$ 905,584 \$ Total Routine \$ \$ 3,065,656 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Project # Description/Location Water Main offsets to accommodate changes in the storm sever and roadway alignments. Project run by WDOT.  Replace 1,500 feet of 8-inch main from 1967 with 12-inch PVC water main on Northview Rd. between Grandview and Tallgrass. Project done with City.  Replace 720 feet of 12-inch main from 1938 with 12-inch ductile iron main on South St. from Grand to Barstow. Replace 280 feet of 6-inch main from 1999 with 8-inch ductile iron. Project done with City.  Replace 1,540 feet of 6-inch from 1927 with 8-inch PVC on Fairview - Motor to St. Paul and Motor - Fairview to Washington. Project done with City.  Replace 1,540 feet of 6-inch from 1927 with 8-inch PVC on Fairview - Motor to St. Paul and Motor - Fairview to Washington. Project done with City.  Extend 12" water main through easement connecting Pebble valley and Oakmont.  Routine Projects \$ 2,160,072 \$ 1,583,753 Misc Routine \$ 905,584 \$ 905,584 Total Routine \$ 905,584 \$ 905,584 Total Routine \$ 3,065,656 \$ 2,489,337    Replace 2,800 feet of 8-inch from 1909 with 24-inch ductile iron on Main St. from Barstow to Lombardi. Project being done with City sanitary.  Replace 2,000 feet of 8-inch from 1957 with 16-inch ductile iron main on N. Moreland Blvd. from Michigan to Summit.  Replace 1,160 feet of 6-inch from 1917 with 20-inch ductile iron on Morth - Fairview to Mountain and Fairview - Motor to Dopp. Project done with City.	Project # Description/Location  Water Main offsets to accommodate changes in the storm sewer and roadway alignments. Project run by WDOT.  Replace 1,500 feet of 8-inch main from 1967 with 12-inch PVC water main on Northview Rd. between Grandview and Tallgrass. Project done with City.  Replace 720 feet of 12-inch main from 1938 with 12-nch dulctile iron main on South St. from Grand to Barstow. Replace 280 feet of 6-inch moin from 1927 with 8-inch pVC on Fairview - Motor to St. Paul and Motor - Fairview to Washington. Project done with City.  Replace 1,540 feet of 6-inch from 1927 with 8-inch pVC on Fairview - Motor to St. Paul and Motor - Fairview to Washington. Project done with City.  Extend 12" water main through easement connecting Pebble Valley and Oakmont.  Routine Projects \$ 2,160,072 \$ 1,583,753 \$ Misc Routine \$ 905,584 \$ 905,584 \$ 905,584 \$ 704,884 \$ 905,584 \$ 704,8	Project #   Description/Location   Budget   Estimate   PJC Total	Project #   Description/Location   Budget   Estimate   PJC Total   All	Project # Description/Location   Budget   Estimate   PJC Total   Aldermanic District									

Bold Totals are Based on Bids



### Monthly Interim Report

# Waukesha Water Utility Future Water Supply

April 16, 2018

This update is solely intended for the use of Waukesha Water Utility's internal management and for Waukesha Water Utility's discussions with the Owner's Engineer and Contractor. The update is not intended to be and should not be used by any other parties without prior written consent from Baker Tilly Virchow Krause, LLP

dependent member of FR TILLY

BAKER TILLY





#### **Scope and Objectives**

Waukesha Water Utility ("WWU" or "Owner") engaged Baker Tilly Virchow Krause, LLP (Baker Tilly, "we" or "our") to perform construction audit services on the Future Water Supply project. Greeley and Hansen ("GH" or "PM/CM") is the Program Manager and Construction Manager engaged by the Owner.

The primary objective of this engagement is to verify whether project expenditures billed to Waukesha Water Utility are adequately supported, verifiable and appropriately allocated to the project.

#### **Current Period Significant Events**

This section of the monthly interim report summarizes Audit Issues and Requests for Information during the current period. The project-to-date Audit Issues (AI) and Request for Information (RFI) logs are included as attachments with this document.

#### **Current Period Audit Issues**

During the current period, we reviewed Invoice No. 19 from Greeley and Hansen. Reimbursable Direct Costs (RDCs) from CH2M reflected a duplicate charge for gas. A credit totaling \$32.84 will be included on Greeley and Hansen Invoice No. 20 (Al-008).

Additionally, Waukesha Water Utility elected to amend the Greeley and Hansen PM/CM contract and award the Construction Manager (CM) scope to Black & Veatch.

#### **Current Period Request for Information**

RFI Nos. 20 and 21 related to Greeley and Hansen RDCs and Ayres mileage charges, which remained open from the prior audit period, were closed.

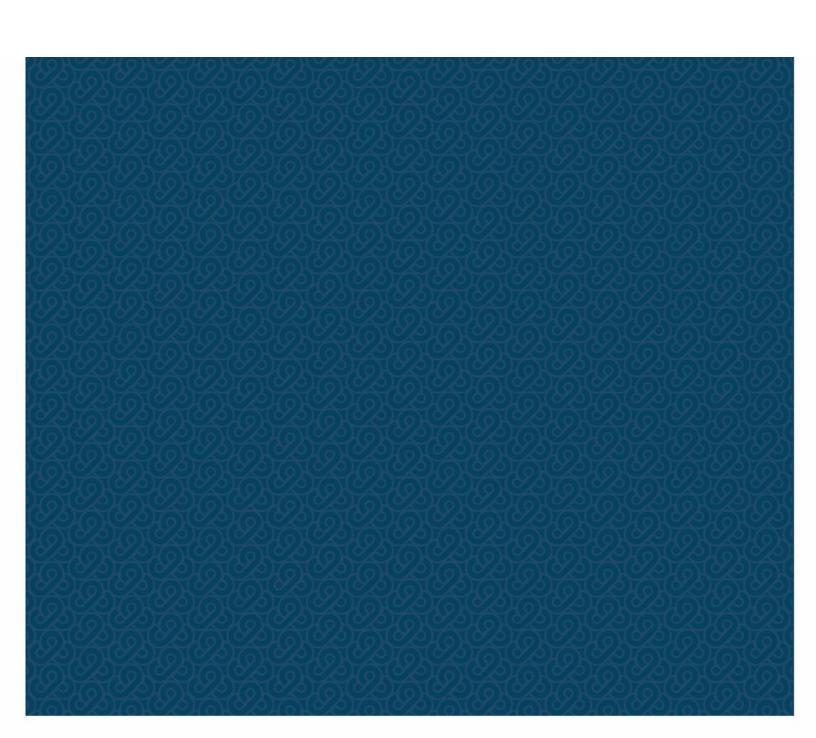
There were two new RFI's during the current period.

- RFI-022 Documentation was requested to validate PSI RDCs totaling \$2,500
- RFI-023 We requested additional support for Ayres mileage charges on Invoice

These requests were submitted to Greeley and Hansen on April 9, 2018 and were resolved on April 13, 2018.



# Exhibit 5 – Earned Value Analysis





### **Earned Value Analysis**

The Earned Value (EV) technique is being used to monitor the Program scope, schedule and cost, and to assess overall Program performance. The components of EV are the work breakdown structure, the schedule and the estimated costs. By connecting these components, future Program performance can be predicted and proactive actions can be taken to stay on track.

The work breakdown structure is a grouping of Program elements that define and organize the scope of the Program. For this Program, the work breakdown structure is defined by the Task and subtask activities, deliverables, meetings and workshops. An estimated cost, or Planned Value (PV), duration and interdependencies are assigned to the Task and subtask activities, deliverables, meetings and workshop. A PV cumulative cost curve is used to identify the value at any point in time of the work that is planned to be done.

On a monthly basis, the value of the work completed as a percentage of the PV is determined by the Program Manager and defines the EV which is shown on the cumulative cost curve. The monthly Program invoices define the Actual Costs (AC) which are also shown on the cumulative cost curve. Using the cumulative cost curves developed for the overall Program and each Task, the Schedule Performance Index (SPI) and the Cost Performance Index (CPI) are calculated. SPI is calculated by dividing EV by PV. The CPI is calculated by dividing EV by AC.

At the December 2017 Commission Meeting, the WWU Commission approved the 2018 Milwaukee Route Study for \$1,345,565 and the Phase 2 2018 budget of \$13,999,908. The remaining budget for Task 3-300 and 5-200 water quality scope in the amount of \$691,441 has been removed from the Program Approved Total amount of \$34,242,960.

The 2018 budgets approved by the Commission in December 2017 have been added to the Earned Value charts in this Exhibit. The Earned Value charts have been updated to reflect the planned expenditure of the 2018 budgets for each Task through December 2018.

The work progress and challenges for each Task are noted on the following graphs.

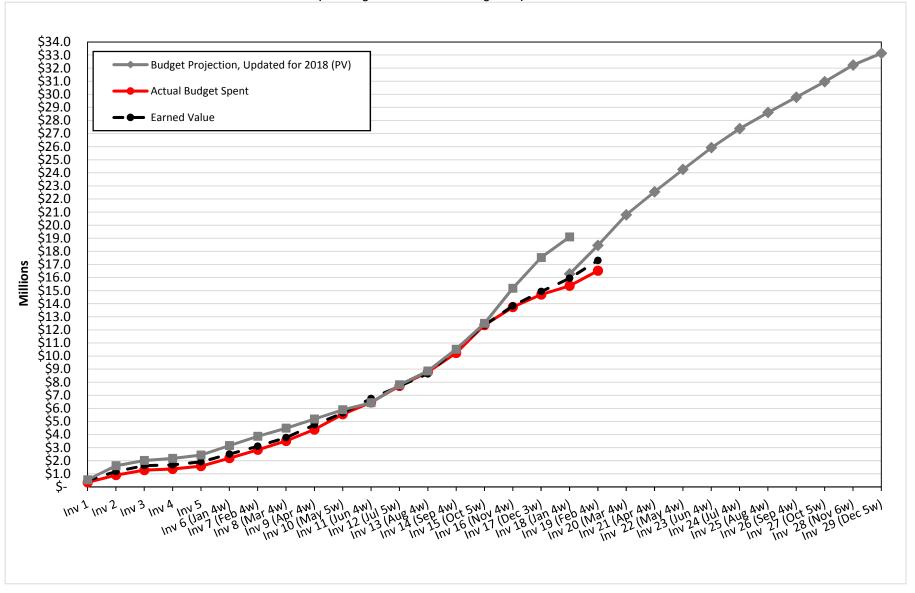




# Great Lakes Water Supply Program PM/CM Program Earned Value Chart



Phase 1 and 2
(Excluding Allowances and Contingencies)

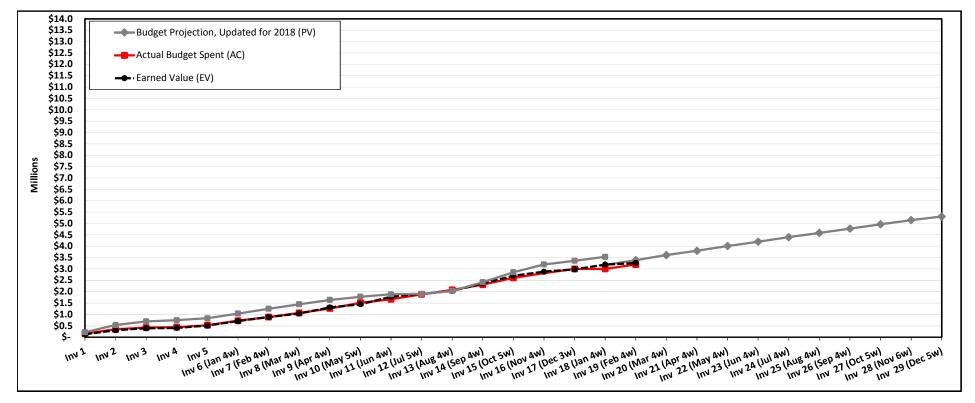


% Spent 49.6% Actual Budget Spent \$16,518,124 Schedule Performance Index (SPI) 0.94
Cost Performance Index (CPI) 1.05



## Task 1 - Program Management Earned Value Chart (Excluding Allowances and Contingencies)





Earned Value Calculations	
Budget at Completion <sup>(BAC)(1)</sup> (BAC)	\$ 5,390,965
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 2,086,227
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 66,174
Schedule Variance (SV) (SV=EV-PV)	\$ (131,116)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.02
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.96
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.98
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 5,281,586.69
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ 109,378.31

#### Task 1 Program Management Plan/Progress

- Performed QM review of the Environmental Impact Report (EIR)
- Prepared and submitted Invoice No. 18.
- Updated the Financial Management Dashboard and Report for Invoice 18.
- Held six (6) Program Team Task 1 meetings.

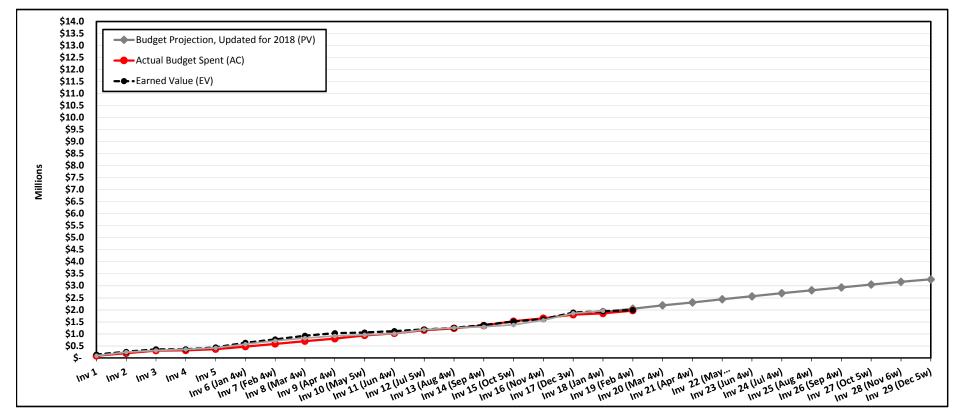
#### Task 1 Program Management Challenges

 The Program Open House in Milwaukee originally planned to occur in February 2018 has been scheduled for April 4. Delay in the scheduling of the Open House meeting negatively impacts the Program schedule for completion of field investigations that are needed for submission of the PSC Construction Authorization and the Preliminary Design Report which are critical path items for the design, bidding and construction of the Program.



## Task 2 - Programmatic Support Services Earned Value Chart (Excluding Allowances and Contingencies)





Earned Value Calculations	
Budget at completion <sup>(BAC)</sup> (BAC)	\$ 3,325,716
Estimate to Complete (ETC1) (ETC1=EAC1-AC)	\$ 1,313,309
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 25,467
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ (55,458)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.01
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.97
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.99
Estimate at Completion (EAC1=BAC/CPI)	\$ 3,283,271.62
Variance at Completion (VAC1=BAC-EAC1)	\$ 42,444.38

#### Task 2 Programmatic Support Services Plan/Progress

- Held Open Houses in Greenfield, West Allis, and New Berlin to support the Milwaukee Route Study.
- Held seven (7) Program team Task 2 meetings.
- Developed the Draft Program 2018 Program Advertising Plan.
- Developing Contractor Outreach including bidder's awareness campaign.

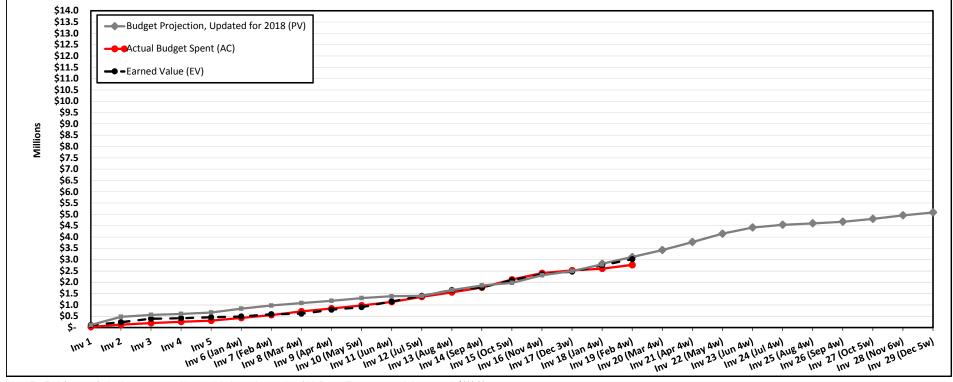
#### Task 2 Programmatic Support Services Challenges

The Program Open House in Milwaukee originally planned to occur in February 2018 has been scheduled for April 4.



## Task 3 - Permitting Earned Value Chart (Excluding Allowances and Contingencies)





Note: The Task 3 amount for Invoice 5 was reported incorrectly in the previous version of this Report. The correct cumulative amount is \$263.96 lower The Task 3 Budget at completion amount was revised to reflect Task Authorizations and contract amendments

Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 5,083,873
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 1,890,100
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 253,082
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ (96,989)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.09
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.97
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	1.06
Estimate at Completion (EAC1) (EAC1=BAC/CPI)	\$ 4,657,968.66
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ 425,904.34

#### Task 3 Permitting Plan/Progress

- Held seven (7) Program Task 3 meetings.
- Submitted the Revised Program-Wide Soil and Groundwater Management Plan to WDNR.
- Previously acquired permits for field investigations were verified to support field investigations for the Return Flow Corridor.
- Submitted the Environmental Impact Report (EIS/WEPA Submittal) to the QM team and initiated the QM process.
- Continued drafting the PSC CA application and the WDNR/USACE wetlands and waterways applications.

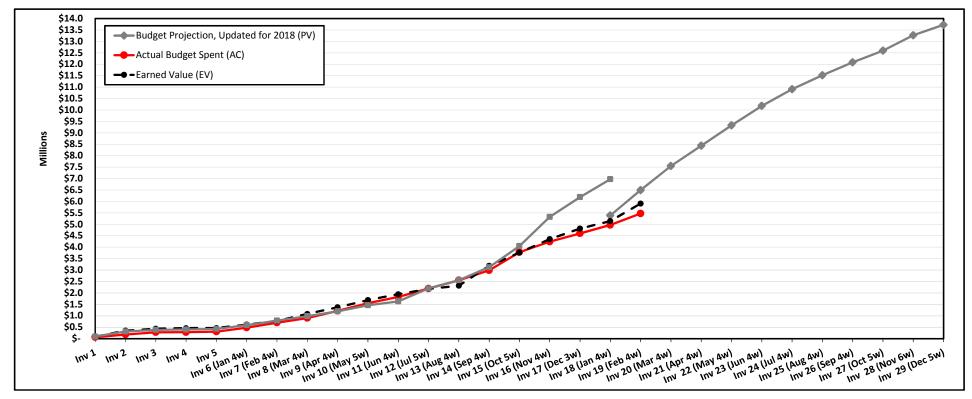
#### Task 3 Permitting Challenges

- Ongoing WDNR negotiations on the Return Flow Management Plan have delayed the completion of the document. Meetings and analysis to complete this work will continue.
- Ongoing WDNR negotiations on chlorides compliance have delayed the completion of the Chloride Reduction Plan.



# Task 4 - Route Study and Pipeline Earned Value Chart (Excluding Allowances and Contingencies)





Note: The Task 4 Budget at completion amount was revised to reflect Task Authorizations and contract amendments

Earned Value Calculations	
Budget at completion <sup>(BAC)</sup> (BAC)	\$ 13,744,049
Estimate to Complete (ETC1) (ETC1=EAC1-AC)	\$ 7,257,923
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 434,666
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ (586,453)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.08
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.91
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.98
Estimate at Completion (EAC1=BAC/CPI)	\$ 12,733,197.58
Variance at Completion (VAC1=BAC-EAC1)	\$ 1,010,851.71

#### Task 4 Route Study and Pipeline Plan/Progress

- Held one (1) Program Team Task 4 meeting and three (3)
   Open House Meetings in West Allis, Greenfield, and New Berlin.
- Further developed the Route Study: Milwaukee (DEL 4-100 D2) in coordination with Program Team members including desktop analyses, steady state hydraulics, preliminary horizontal alignments, and conceptual opinions or probable construction cost.
- Further refined the Preliminary Design Report (PDR) (DEL 6-240 D1).
- Proceeded with field investigations and further developed reports associated with field investigations along the Return Flow Pipeline.

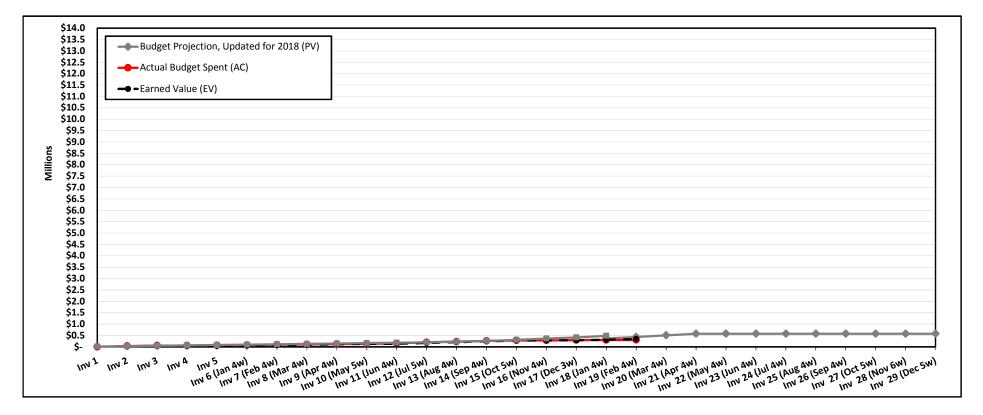
#### Task 4 Route Study and Pipeline Challenges

 Changes to the WSPS location and connection to the MWW distribution system could negatively impact the schedule for submission of the PSC Construction Authorization and the Preliminary Design Report (PDR) (DEL 6-240 D1), which are critical path items for the design, bidding and construction of the Program.



## Task 5 - Distribution System Earned Value Chart (Excluding Allowances and Contingencies)





Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 579,901
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 203,466
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 42,742
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ (91,773)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.14
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.79
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.90
Estimate at Completion (EAC1) (EAC1=BAC/CPI)	\$ 508,665.16
Variance at Completion(VAC1=BAC-EAC1)	\$ 71,235.92

#### Task 5 Distribution System Plan/Progress

- Continued work on 5-110 Model Update Technical Memorandum.
- Continued work on 5-120 D1 Distribution System Hydraulic Modeling Report.

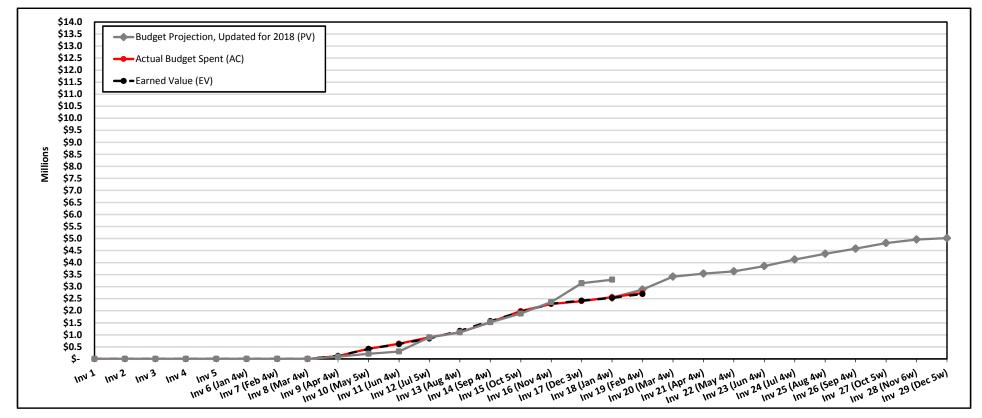
#### Task 5 Distribution System Challenges

 Scope and budget associated with Tasks 5-200 and 5-300 water quality have been removed.



## Task 6 - Pump Stations, Storage, and Chemical Treatment Earned Value Chart (Excluding Allowances and Contingencies)





Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 5,018,415
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 2,353,316
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ (39,720)
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ (179,889)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	0.99
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.94
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.92
Estimate at Completion (EAC1) (EAC1=BAC/CPI)	\$ 5,092,263.27
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ (73,848.17)

# Task 6 Pump Stations, Storage and Chemical Treatment Plan/Progress

- Performed soil borings at the Booster Pumping Station (BPS) site.
- Finalized the Phase 1 Environmental Site Assessment (ESA ) for BPS and return Flow Pumping Station.
- Coordinated with Milwaukee Water Works (MWW) to confirm the capacity of the Water Supply Pumping Station (WSPS).
- Met with Clean Water Plant (CWP) staff to present 30% design of the RFPS.
- Continued to address comments and revisions to

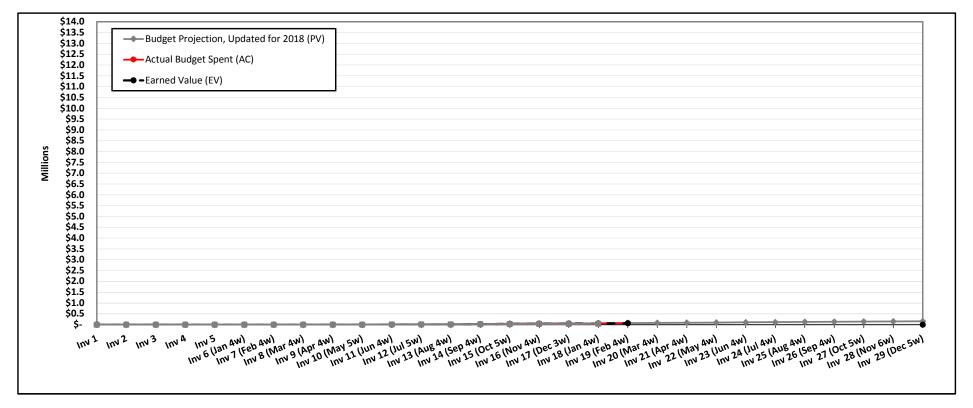
### Task 6 Pump Stations, Storage and Chemical Treatment Challenges

- The site selection process must be complete for the WSPS in order to perform site investigations.
- Survey and geotechnical work has been delayed due to inclement weather conditions and proceeds as conditions allow.
- Proceeding with conservative design estimates for water quality from the supplier for sizing chemical feed facilities due to limited information available from the supplier.



# Task 7 - Construction and Construction Management Earned Value Chart (Excluding Allowances and Contingencies)





Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 154,378
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 86,840
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 872
Schedule Variance (SV) (SV=EV-PV)	\$ (5,118)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.01
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.93
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.94
Estimate at Completion (EAC1=BAC/CPI)	\$ 152,351.02
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ 2,026.98

# Task 7 Construction and Construction Management Plan/Progress

• Initiated Contracting Strategy Plan for QM review.

# Task 7 Construction and Construction Management Challenges

 Impending Federal funding and financing opportunities may impact the contracting strategy for the Program.