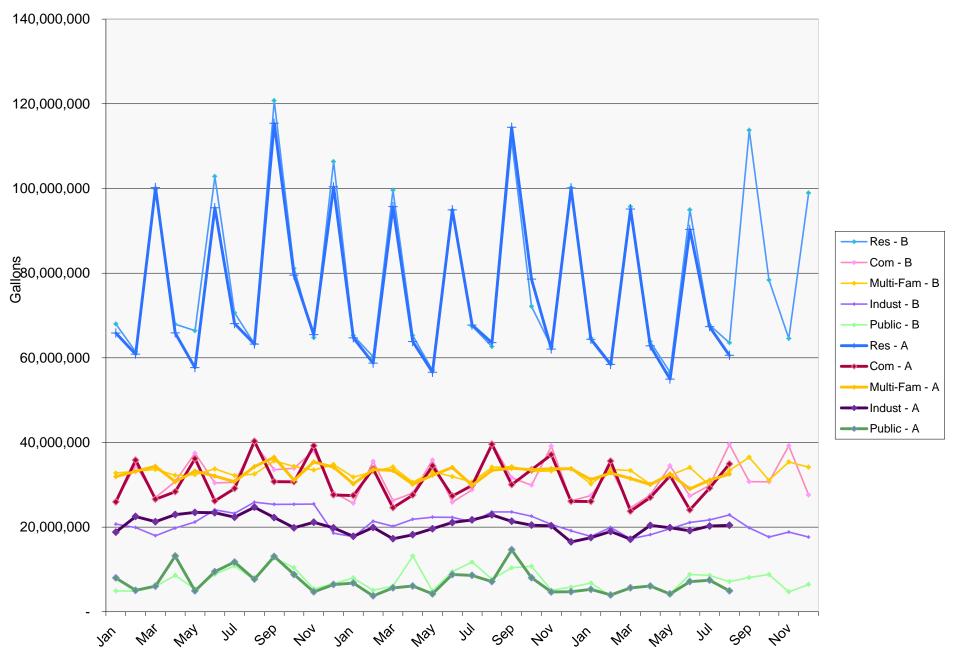
#### WAUKESHA WATER UTILITY STATEMENT OF REVENUES & EXPENSES MONTH ENDED 8/31/2017

		CURRENT N	MONTH		YEAR TO DATE				ANNUAL BUDGET			
OPERATING REVENUES:	ACTUAL'17	BUDGET'17	VARIANCE	%	ACTUAL'17	BUDGET'17	VARIANCE	%				
OPERATING REVENUES:												
Residential	\$305,724.15	\$351,107.79	(\$45,383.64)	(12.93)	\$2,842,062.66	\$3,065,629.60	(\$223,566.94)	(7.29)	\$5,030,437.72			
Commercial	134,626.01	166,272.38	(31,646.37)	(19.03)	917,632.83	1,014,080.39	(96,447.56)	(9.51)	1,569,599.84			
Industrial	65,806.67	81,586.60	(15,779.93)	(19.34)	499,104.06	560,907.71	(61,803.65)	(11.02)	827,015.90			
Public	18,908.51	28,463.53	(9,555.02)	(33.57)	171,894.61	208,785.52	(36,890.91)	(17.67)	326,294.38			
Multi Family	127,618.95	145,182.53	(17,563.58)	(12.10)	991,054.76	1,075,891.91	(84,837.15)	(7.89)	1,668,162.54			
Total Metered Sales	\$652,684.29	\$772,612.83	(\$119,928.54)	(15.52)	\$5,421,748.92	\$5,925,295.13	(\$503,546.21)	(8.50)	\$9,421,510.38			
Private Fire Capacity	\$16,486.68	\$18,125.19	(\$1,638.51)	(9.04)	\$126,129.31	\$132,064.63	(\$5,935.32)	(4.49)	\$199,976.65			
Public Fire Capacity	130,509.41	144,590.82	(14,081.41)	(9.74)	1,157,761.33	1,228,998.01	(71,236.68)	(5.80)	1,927,919.50			
Other Operating Revenues	28,007.94	28,545.06	(537.12)	(1.88)	256,955.44	269,683.09	(12,727.65)	(4.72)	496,500.37			
TOTAL OPERATING REVENUES	\$827,688.32	\$963,873.90	(\$136,185.58)	(14.13)	\$6,962,595.00	\$7,556,040.86	(\$593,445.86)	(7.85)	\$12,045,906.90			
OPERATING EXPENSES:												
Source	\$70,304.70	\$64,128.89	\$6,175.81	9.63	\$1,400,087.43	\$513,031.12	\$887,056.31	172.90	\$769,546.68			
Pumping	78,954.27	84,920.57	(5,966.30)	(7.03)	560,530.02	670,241.57	(109,711.55)	(16.37)	1,015,429.53			
Treatment	25,003.13	31,468.90	(6,465.77)	(20.55)	266,018.57	299,538.70	(33,520.13)	(11.19)	473,201.80			
Distribution	82,422.12	118,327.12	(35,905.00)	(30.34)	635,468.96	981,584.91	(346,115.95)	(35.26)	1,476,932.94			
Customer Service	15,693.48	15,209.28	484.20	3.18	128,752.92	124,803.18	3,949.74	3.16	203,204.17			
Administrative	93,473.20	103,129.60	(9,656.40)	(9.36)	1,070,785.23	1,105,907.26	(35,122.03)	(3.18)	1,626,498.94			
Total	\$365,850.90	\$417,184.36	(51,333.46)	(12.30)	\$4,061,643.13	\$3,695,106.74	366,536.39	9.92	\$5,564,814.06			
MANAGERS' MARGIN	461,837.42	546,689.54	(84,852.12)	(15.52)	2,900,951.87	3,860,934.12	(\$959,982.25)	(24.86)	6,481,092.84			
Depreciation	158,784.10	156,724.04	2,060.06	1.31	1,278,676.32	1,253,792.32	24,884.00	1.98	1,880,688.48			
Tax Equivalent	146,566.83	145,847.99	718.84	0.49	1,172,219.34	1,166,783.92	5,435.42	0.47	1,750,175.88			
Other Taxes	12,631.57	12,017.86	613.71	5.11	96,518.92	96,267.88	251.04	0.26	154,451.82			
TOTAL OPERATING EXPENSES	\$683,833.40	\$731,774.25	(\$47,940.85)	(6.55)	\$6,609,057.71	\$6,211,950.86	\$397,106.85	6.39	\$9,350,130.24			
TOTAL OPERATING INCOME(LOSS)	\$143,854.92	\$232,099.65	(\$88,244.73)	(38.02)	\$353,537.29	\$1,344,090.00	(\$990,552.71)	(73.70)	\$2,695,776.66			
NON OPERATING INCOME&(EXPENSE)	(18,699.37)	(145,143.82)	126,444.45	(87.12)	(907,491.69)	(1,182,525.86)	275,034.17	(23.26)	(1,009,821.75)			
NET INCOME(LOSS)	\$125,155.55	\$86,955.83	\$38,199.72	43.93	(\$553,954.40)	\$161,564.14	(\$715,518.54)	(442.87)	\$1,685,954.91			

WWU Billed Gallons Actual v Budget 2015 - 2017



#### **WAUKESHA WATER UTILITY** STATEMENT OF SOURCES AND USES OF CASH PERIOD ENDING AUGUST 31, 2017

Cash Balance - July 31, 2017

\$36,512,117

(\$1,197,845)

#### **SOURCES:**

**USES:** 

Operations:		
Customers - water sales	\$819,967	
Waste Water Utility - joint metering billing	56,968	
Rent of utility property - cellular leases	12,028	
Receipts on sewer bills	1,053,639	
Other - miscellaneous	22,353	
Total Cash From Operating Activities	\$1,964,955	
Capital and Related Financing Activities:		
Grants		
Contributions	125,626	
Issuance of long-term debt		
Sale of short-term debt		
Interest income	32,206	
Total Cash From Capital/ Investing Activities	\$157,832	
	_	
Total Cash Receipts		\$2,122,787
Total Cash Receipts		\$2,122,787
·	\$242.706	\$2,122,787
Salaries, wages, payroll taxes and benefits	\$242,706 16.126	\$2,122,787
Salaries, wages, payroll taxes and benefits Subcontracted and outside services	16,126	\$2,122,787
Salaries, wages, payroll taxes and benefits Subcontracted and outside services Disbursement to city for sewer transfer	16,126 1,181,203	\$2,122,787
Salaries, wages, payroll taxes and benefits Subcontracted and outside services Disbursement to city for sewer transfer Pumping power	16,126 1,181,203 64,178	\$2,122,787
Salaries, wages, payroll taxes and benefits Subcontracted and outside services Disbursement to city for sewer transfer Pumping power Purchase of materials and supplies	16,126 1,181,203	\$2,122,787
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	16,126 1,181,203 64,178	\$2,122,787
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	16,126 1,181,203 64,178 41,941	\$2,122,787
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	16,126 1,181,203 64,178 41,941	\$2,122,787
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	16,126 1,181,203 64,178 41,941	\$2,122,787 \$3,320,632

Cash Balance - August 31, 2017 \$35,314,273

**Net Change in Cash** 

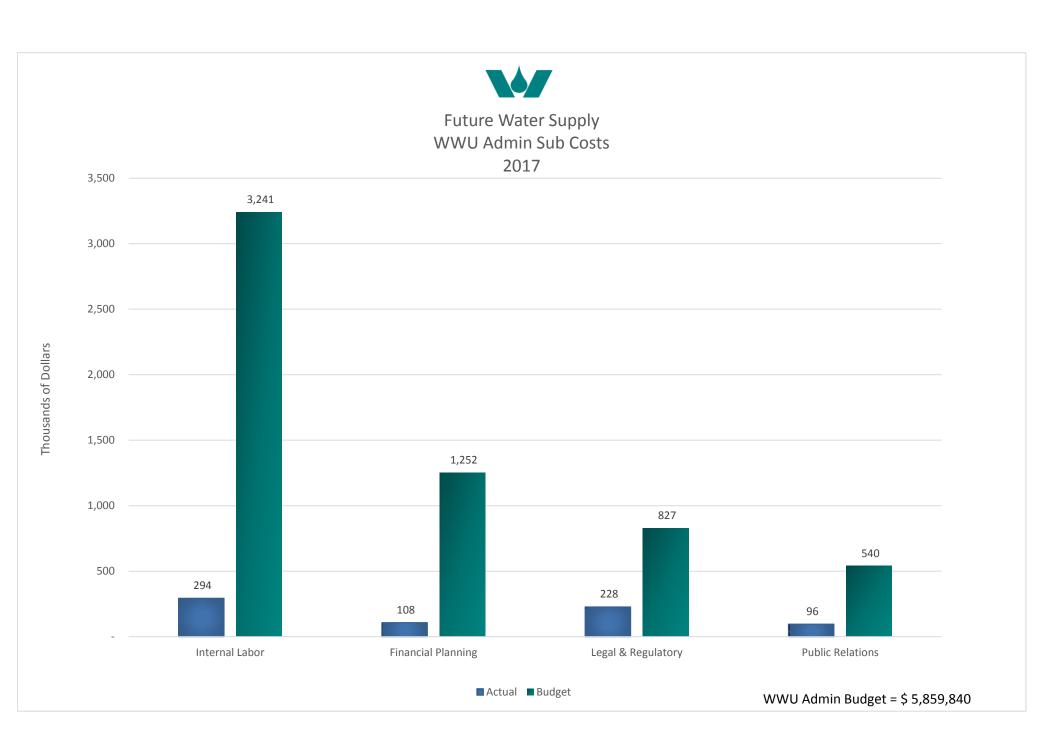
#### WAUKESHA WATER UTILITY BALANCE SHEET 8/31/2017

<u>ASSETS</u>	THIS YEAR
CURRENT	
CASH AND INVESTMENTS	\$22,647,710.34
ACCOUNTS RECEIVABLE	4,877,794.20
RECEIVABLE FROM SEWER REIMB	0.00
MATERIALS & SUPPLIES	557,420.41
OTHER CURRENT ASSETS ACCRUED UTILITY REVENUE	15,997.00
TOTAL CURRENT ASSETS	0.00 \$28,098,921.95
DEFERRED	φ20,090,921.93
DEFERRED ASSETS	\$11,404,334.78
TOTAL DEFERRED DEBITS	11,404,334.78
RESTRICTED	11,404,004.70
DEBT PAYMENT ACCOUNT	\$1,221,501.16
DEBT RESERVE ACCOUNT	475,562.12
CONSTRUCTION FUND	9,176,479.21
TAX EQUIV RESERVE ACCOUNT	1,793,019.70
TOTAL RESTRICTED FUNDS	\$12,666,562.19
LONG TERM	
UTILITY PLANT IN SERVICE-NET	\$89,271,404.00
PROPERTY HELD FOR FUTURE USE	435,089.69
CONSTRUCTION WORK IN PROGRESS	2,010,550.71
RESTRICTED NET PENSION	(225,396.00)
TOTAL UTILITY PLANT	\$91,491,648.40
TOTAL ASSETS	\$143,661,467.32
LIABILITIES CURRENT CUR PORTION BOND	420,134.14
NOTES PAYABLE	27,285,000.00
ACCOUNTS PAYABLE	1,657,920.30
PAYABLE TO OTHER FUNDS	2,836,905.53
CUSTOMER DEPOSITS	203,269.75
A/P MISCELLANEOUS	0.00
TAXES ACCRUED	1,195,752.00
INTEREST ACCRUED	691,207.94
EMPLOYEE WITHHOLDING	18,174.95
ACCRUED PAYROLL	119,588.00
ACCRUED VACATION	227,813.40
TOTAL CURRENT LIABILITIES  DEFERRED CREDITS	\$34,655,766.01
CUSTOMER ADVANCES CONSTRUCTION	\$0.00
REGULATORY LIABILITY	1,210,336.50
OPEB LIABILITY	1,245,113.73
OTHER DEFERRED CREDITS	3,137,180.81
TOTAL DEFERRED CREDITS LONG-TERM	\$5,592,631.04
BONDS	\$28,128,907.51
EQUITY	
CAPITAL PAID IN BY MUNICIPALITY	\$2,666,484.02
EQUITY FINANCED BY UTILITY	39,949,268.22
EQUITY FROM CONTRIBUTIONS	32,526,407.92
RESTRICTED EQUITY	695,957.00
NET PROFIT (LOSS)	(553,954.40)
TOTAL EQUITY	\$75,284,162.76
TOTAL EQUITY AND LIABILITIES	\$143,661,467.32

## WWU TRANSMISSION AND DISTRIBUTION BUDGET VARIANCE ANALYSIS

Project	Project #	Description/Location	Budget		Current Estimate	PJ	IC Total	Ald	ermanic District	Construction Completion		
WM offsets from WSB from Fiddlers Creek to Northview Road	M00500	Water Main offsets to accommodate changes in the storm sewer and roadway alignments. Project run by CH2M on behalf of the County.		\$	58,407	\$	56,660	14	Bill Boyle	December 2017		
WM offsets from WSB		Water Main offsets to						6	Adam Jankowski			
from Genesee Road	M00501	accommodate changes in the storm sewer and roadway		\$	250,000	\$	9,490	7	Daniel J. Manion	Fall 2018		
to Fiddlers Creek	1000001	alignments. Project run by		lΨ	230,000	Ψ	3,430	13	Dean Lemke	1 811 2010		
Drive		WDOT.						14	Bill Boyle			
WM offsets from WSB from Northview to	M00502	Water Main offsets to accommodate changes in the storm sewer and roadway		\$	308,751	\$	303,322	5	Peter Bartels	November 2017		
Rolling Ridge Drive		alignments. Project run by the City.						14	Bill Boyle			
N Grand - 5 Points to Wisconsin and South St - Clinton to Grand Ave.	M00507	Replace 600 feet if 10" main from 1908 with 12" on South Street from Clinton to Grand and on N. Grand from 5 Points to Wisconsin. Project done with the City.		\$	298,945	\$	249,150	11	Erik Helgestad	June 2017		
Prairie Ave - College to St Paul Ave.	M00508	Cancelled by the City until a Future Year	147	\$	-	\$	794			Cancelled		
		Replace 750 of 6" main from 1911	\$2,787,447					3 Cassie Rodriguez				
Caroline St - Arcadian to Main St.	M00509	with 8" on Caroline between Arcadian and Main Street. Project done with City Sanitary.	\$\$	\$	176,392	\$	\$ 20,483		20,483	11	Erik Helgestad	October 2017
NW Barstow - Buena Vista to Lemira Ave.	M00510	Replace 1,560 feet of 6" main from 1909, 1915, and 1930 with 8" on NW Barstow from Buena Vista to Lemira. Project done with the City.		\$	312,364	\$	258,644	2	Eric Payne	June 2017		
Arcadian - Eugene to Greenfield Ave.	M00512	Replace 1,500 feet of 6" main from 1924 with 550' of 8" and 950' 12" on NW Barstow from Buena Vista to Lemira. Project done with the City.		\$	363,087	\$	321,981	3	Cassie Rodriguez	October 2017		
Oscar Street - Jefferson to Highland Ave.	M00513	Lower services on Oscar between Jefferson & Highland to eliminate annual water runs due to large storm sewer. Main is from 1958 but will not be replaced due to budget constraints.		\$	41,622	\$	31,841	3	Cassie Rodriguez	October 2017		
Waukesha County Expo Center	M00514	Eliminate water meter pit and install 20 feet of 8" ductile iron pipe.		\$	7,508	\$	7,508	2	Eric Payne	May 2017		
	Routine I		\$ 2,787,447		1,817,076		,259,875					
	Misc R Total R		\$ 558,809 \$ 3,346,256	\$	558,809 2,375,885		558,809 ,818,684					
	7010771		Ψ 0,010,200	Ψ	2,010,000	Ψ.	,010,001					
West Ave from Wisconsin to Glenwood, West on	GLCD0008	Replacing 8" from 1913 on West from Wisconsin to Glenwood, 6" from 1927 on Glenwood, with 24" main, then new 24" crossing river,	\$ 1,924,600	•	1,134,906	\$	79,749	2	Eric Payne	December		
Glenwood, under Fox River to Mountain Ave.	GLOD0006	passing through Grede Park and connecting to 20" main on Mountain. Project done with City Sanitary.	ψ 1, <del>324,</del> 000		1,104,500	Ψ	13,143	11	Erik Helgestad	2017		
D:-1	ribution Systa	m Improvements	\$1,924,600	\$	1,134,906	\$	79,749		•			

Bold Totals are Based on Bids



## Monthly Interim Report

## Waukesha Water Utility Future Water Supply

August 15, 2017

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



# Summary of Significant Events

## **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. 11 from Greeley and Hansen. Additional information is required to verify the Earned Value Analysis included as Exhibit 5 in Monthly Program Status Report No. 11 (see AI-003). We met with Greeley and Hansen on July 27, 2017 and conducted a follow up call on August 7, 2017 to discuss the earned value calculations provided with monthly progress reporting. Specifically we inquired about the Budget at Completion for each task, actual costs utilized in the calculations, and the methodology for determining earned value for the period. Greeley and Hansen provided additional support on August 7, 2017; however, the values per the support did not reconcile to Exhibit 5 in Monthly Program Status Report No. 11. We will continue to follow up with Greeley and Hansen during August 2017 in order to close this audit issue.

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

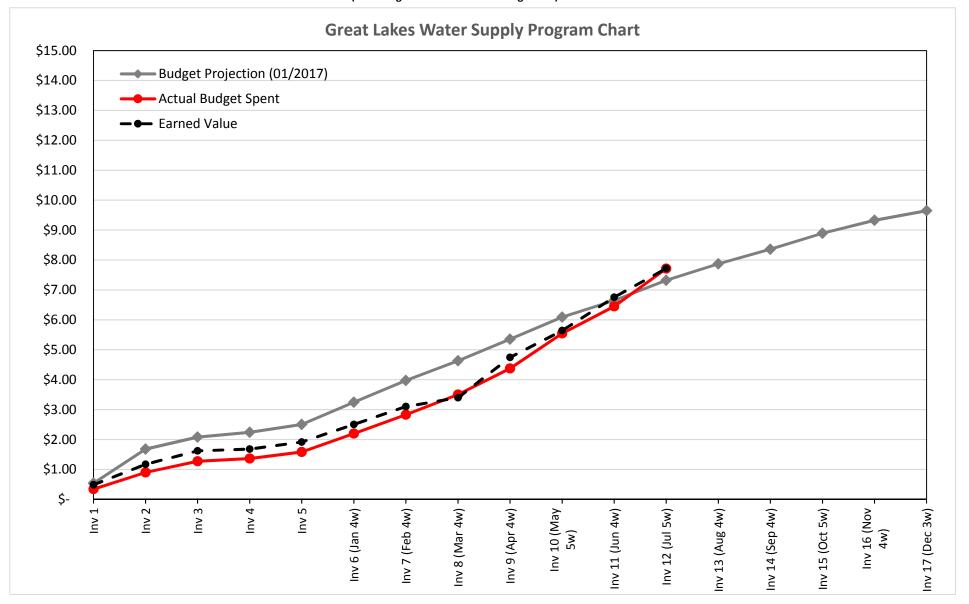
Additional documentation was requested to validate labor hours for four Greeley and Hansen employees whose hours did not reconcile to billings on Invoice No. 11 (see RFI-012). Greeley and Hanson provided the requested documentation, the labor hours were verified, and this item was closed.



# Great Lakes Water Supply Program PM/CM Program Earned Value Chart Phase 1 and 2



(Excluding Allowances and Contingencies)

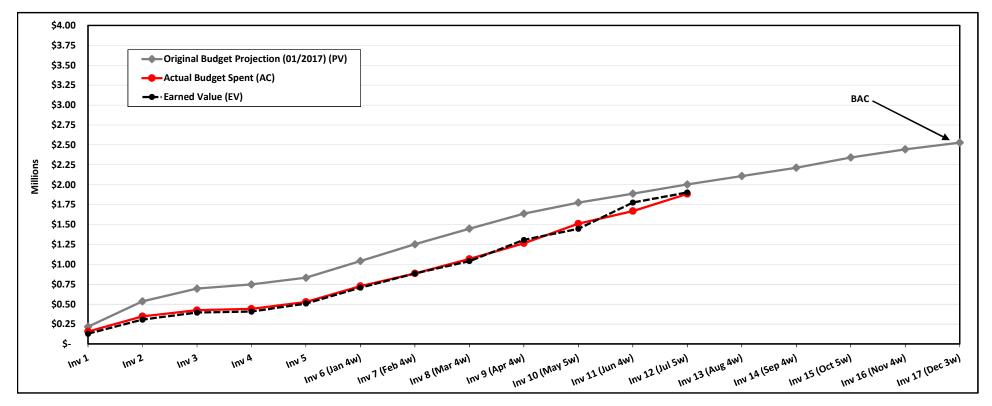


% Spent 73.8% Actual Budget Spent \$7,712,338.96 Schedule Performance Index (SPI) 1.05
Cost Performance Index (CPI) 1.00



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





Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 2,536,682.77
Estimate to Complete (ETC1) (ETC1=EAC1-AC)	\$ 627,996.66
Cost Variance <sup>(CV)</sup> (CV=EV-PV)	\$ (101,047.92)
Schedule Variance (SV) (SV=EV-AC)	\$ 18,522.10
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.01
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.95
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.96
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 2,511,986.64
Variance at Completion (VAC1=BAC-EAC1)	\$ 24,696.13

#### Task 1 Program Management Plan/Progress

- Program Cost was reviewed and further updated based on design refinements.
- Water Supplier evaluation support continued including meeting with water suppliers
- The Financial Management Dashboard has been prepared for review with Waukesha at the September 6, 2017 meeting.
- The Program Management Team and Waukesha met with WDNR to discuss funding requirements and schedule. The feedback in being incorporated into the Program Schedule.

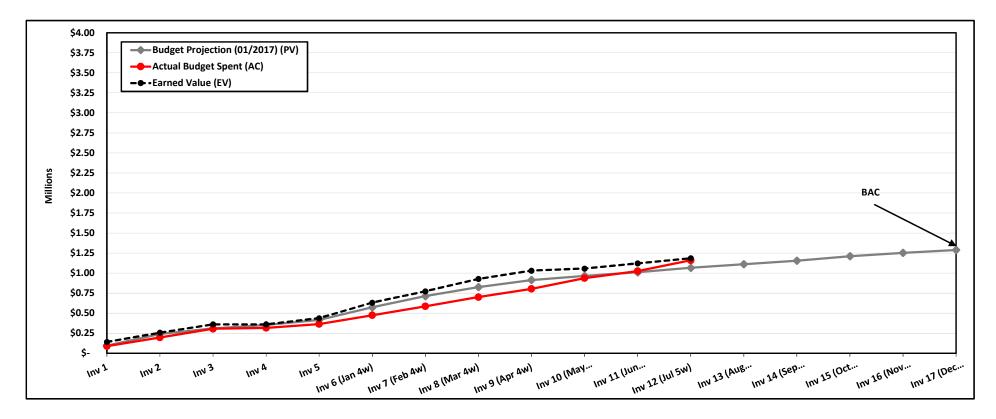
#### Task 1 Program Management Challenges

- It is anticipated that the Task 1 budget will be expended by the end of November 2017. An estimate of 2018 budget needed in 2017 to continue providing Program Management has been developed and is being reviewed with WWU on September 6.
- Development of the Design Reports for the Public Service Commission (PSC) and Wisconsin Department of Natural Resource (WDNR) is being expedited to be prepared to meet anticipated funding timelines and provide greater design



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





Earned Value Calculations	
Budget at completion <sup>(BAC)</sup> (BAC)	\$ 1,289,070.57
Estimate to Complete (ETC1=EAC1-AC)	\$ 100,938.32
Cost Variance <sup>(CV)</sup> (CV=EV-PV)	\$ 25,154.23
Schedule Variance (SV) (SV=EV-AC)	\$ 118,973.92
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.02
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	1.11
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	1.14
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 1,261,729.01
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ 27,341.56

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

- An Open House in Waukesha was planned and organized.
- Media relations support was provided regarding the Great Lakes Compact Council announcement of agreement with the Cities Imitative and the water supplier selection.
- Communication with local stakeholders continues to support Route Study field investigations.

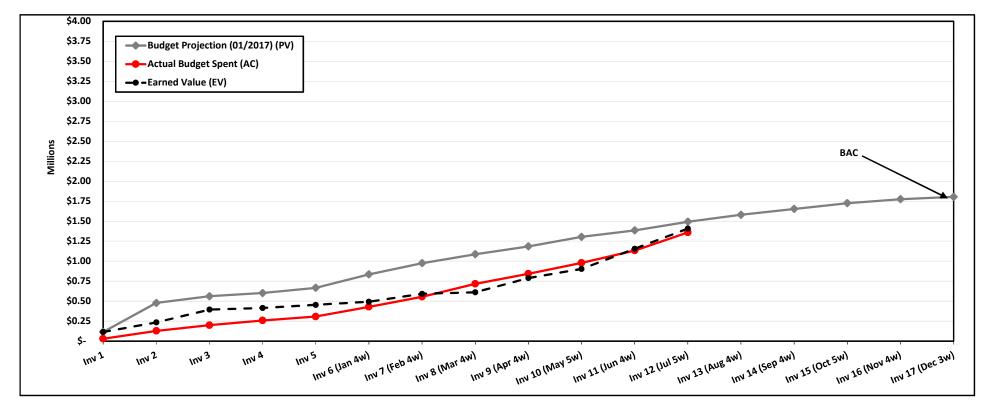
#### Task 2 Programmatic Support Services Challenges

The Task 2 budget will be expended in by the end of August 2017. An interim budget redistribution within the approved Program Budget was approved by Waukesha as Task Authorization No. 7 .An estimate of 2018 budget needed in 2017 to continue providing Program Management has been developed and is being reviewed with WWU on September 6.



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





Earned Value Calculations	
Budget at completion <sup>(BAC)</sup> (BAC)	\$ 1,804,525.75
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 335,836.24
Cost Variance <sup>(CV)</sup> (CV=EV-PV)	\$ (86,105.52)
Schedule Variance (SV) (SV=EV-AC)	\$ 47,704.35
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.04
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.94
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.98
Estimate at Completion (EAC1=BAC/CPI)	\$ 1,743,366.32
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ 61,159.43

#### Task 3 Permitting Plan/Progress

- WDNR, WisDOT and USACE meetings for construction and WPDES permitting occurred. The PM/CM team, Paul Kent, and Bruce Baker continue to contact WDNR weekly to maintain open lines of communication.
- Implementation of efforts to suppport field investigations is occurring.
- Permits necessary for field investigations are being prepared and submitted to local authorities having justidiction.
- Meetings with local municipalities and counties are being held.

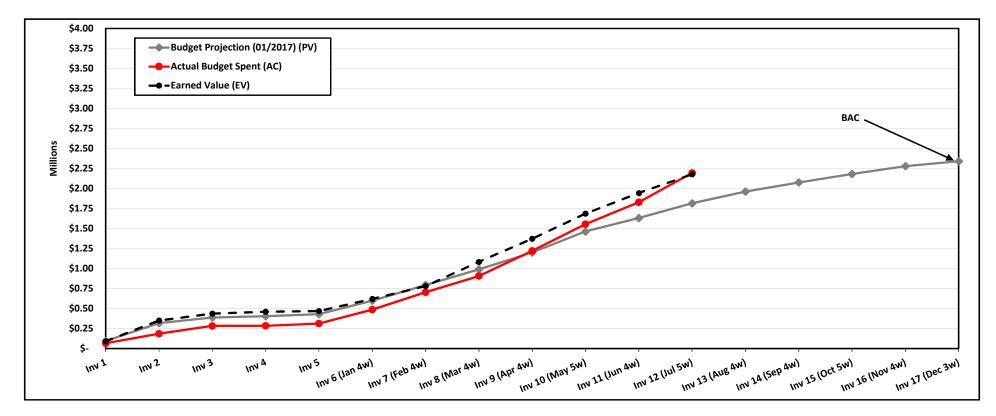
#### Task 3 Permitting Challenges

- It is anticipated that the Task 3 budget will be expended by the end of November 2017. An estimate of 2018 budget needed in 2017 to continue providing Program Management has been developed and is being reviewed with WWU on September 6.
- Scheduling the water supply meeting with WDNR is awaiting final water supplier selection.



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





Earned Value Calculations	
Budget at completion <sup>(BAC)</sup> (BAC)	\$ 2,341,454.13
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 165,234.64
Cost Variance <sup>(CV)</sup> (CV=EV-PV)	\$ (17,707.94)
Schedule Variance (SV) (SV=EV-AC)	\$ 362,302.34
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	0.99
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	1.20
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	1.19
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 2,360,494.92
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ (19,040.79)

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

- The preferred route for the return flow pipeline was between Oak Creek and Waukesha was identified.
- Desktop level evaluation of a Milwaukee route for conceptual level cost development was performed.
- The Route Study Report, the WDNR Preliminary Design Report, and opinions of probable cost have been further developed.
- Field investigations planning is occurring including coordination with the programmatic support services team regarding communication with local

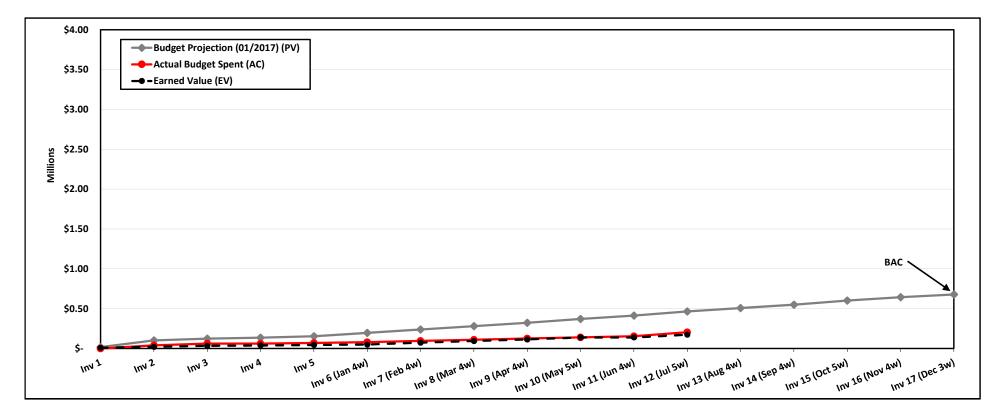
#### Task 4 Route Study and Pipeline Challenges

- The water supplier has not been confirmed. The supplier needs to be selected to advance the Water Supply Pumping Station design for the WDNR Preliminary Design Report submission.
- It is anticipated that the Task 4 budget will be expended by the end of August 2017. An interim budget redistribution within the approved Program Budget was approved by Waukesha as Task Authorization No. 7. An estimate of 2018 budget needed in 2017 to continue providing Program Management has been developed and is being



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





Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 698,405.42
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 615,925.15
Cost Variance <sup>(CV)</sup> (CV=EV-PV)	\$ (30,707.03)
Schedule Variance <sup>(SV)</sup> (SV=EV-AC)	\$ (290,998.65)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	0.85
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.38
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.32
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 821,233.53
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ (122,828.11)

#### 1. Task 5 total budget value has been corrected

## Task 5 Distribution System and Water Quality Plan/Progress

- Calibration field testing was performed successfully. The field data is being incorporated into the distribution system model to perform model calibration.
- No progress has occurred on the Pipe Loop Test apparatus design. Preliminary design documents for the pipe loop test apparatus will be initiated upon confirmation of water supplier.

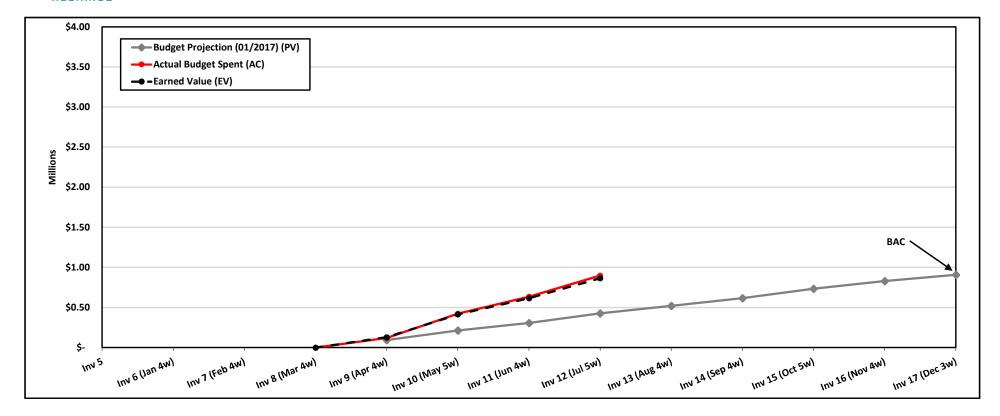
#### Task 5 Distribution System and Water Quality Challenges

- Selection of the water supplier has resulted in a delay in having the WDNR Water Supply meetings for permitting has impacted the schedule for Pipe Loop Testing and water quality analysis.
- No 2018 budget shift is needed in 2017 to achieve the Task 5 plan for 2017.



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





Earned Value Calculations	
Budget at completion (BAC)(1)(BAC)	\$ 920,391.60
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 57,261.71
Cost Variance <sup>(CV)</sup> (CV=EV-PV)	\$ (31,932.03)
Schedule Variance (SV) (SV=EV-AC)	\$ 438,798.10
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	0.96
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	2.03
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	1.96
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 954,361.84
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ (33,970.24)

<sup>1.</sup> Task 6 total budget value has been corrected

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

- Performed site visits booster pumping stations in the Waukesha distribution system and understand operations and maintenance needs.
- Iniated development of the WDNR Preliminary Design Report.
- Advance the preliminary design of Booster Pumping Station site and building.
- Prepared a conceptual design of Water Supply Pumping Station building.
- Field investigations planning is occurring including coordination with the programmatic support

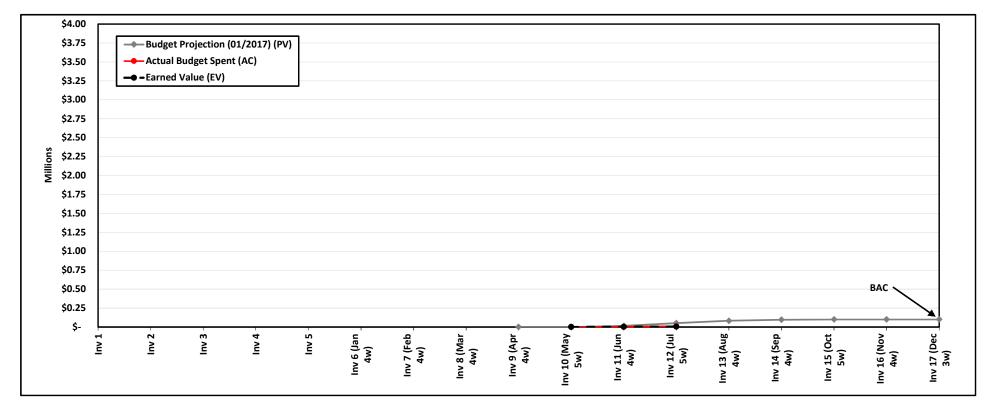
## Task 6 Pump Stations, Storage and Chemical Treatment Challenges

- The water supplier has not been confirmed. The supplier needs to be selected to advance the Water Supply Pumping Station design for the WDNR Preliminary Design Report submission.
- The Task 6 budget will be expended by the end of August 2017. An interim budget redistribution within the approved Program Budget was approved by Waukesha as Task Authorization No. 7. An estimate of 2018 budget needed in 2017 to continue providing Program Management has been developed and is being reviewed with WWU



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





Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 99,105.00
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ -
Cost Variance <sup>(CV)</sup> (CV=EV-PV)	\$ -
Schedule Variance (SV) (SV=EV-AC)	\$ -
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	0.00
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.00
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.00
Estimate at Completion (EAC1=BAC/CPI)	\$ -
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ -

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#### Task 7 Construction and Construction Management Plan/Progress

No progress this Invoice period.



No challenges.

<sup>1.</sup> Task 7 total budget value is added