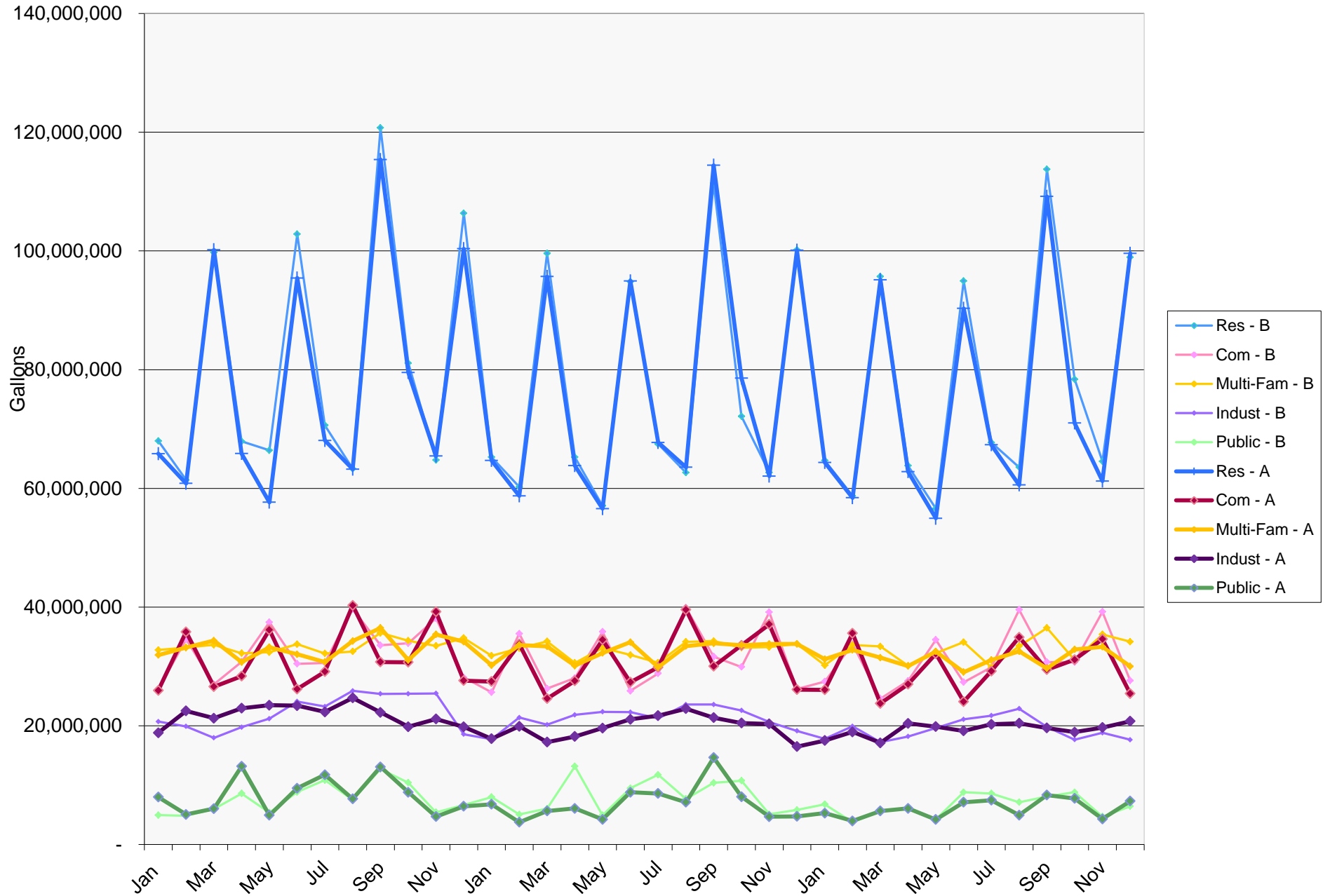


WWU  
Billed Gallons  
Actual v Budget  
2015 - 2017



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

**Cash Balance - November 30, 2017**

**\$30,967,597**

**SOURCES:**

**Operations:**

Customers - water sales	\$738,061
Waste Water Utility - joint metering billing	56,968
Rent of utility property - cellular leases	12,028
Receipts on sewer bills	1,063,828
Other - miscellaneous	19,399
Total Cash From Operating Activities	<u>\$1,890,284</u>

**Capital and Related Financing Activities:**

Grants	
Contributions	3,384
Issuance of long-term debt	
Sale of short-term debt	
Interest income	32,587
Total Cash From Capital/ Investing Activities	<u>\$35,971</u>

**Total Cash Receipts**

\$1,926,255

**USES:**

Salaries, wages, payroll taxes and benefits	\$255,335
Subcontracted and outside services	90,514
Disbursement to city for sewer transfer	1,158,679
Pumping power	56,830
Purchase of materials and supplies	588,523
Tax equivalent - PILOT	
Acquisition of capital assets	2,889,808
Debt service - principal	
Debt service - interest	

**Total Cash Used**

\$5,039,688

**Net Change in Cash**

(\$3,113,433)

**Cash Balance - December 31, 2017**

\$27,854,164

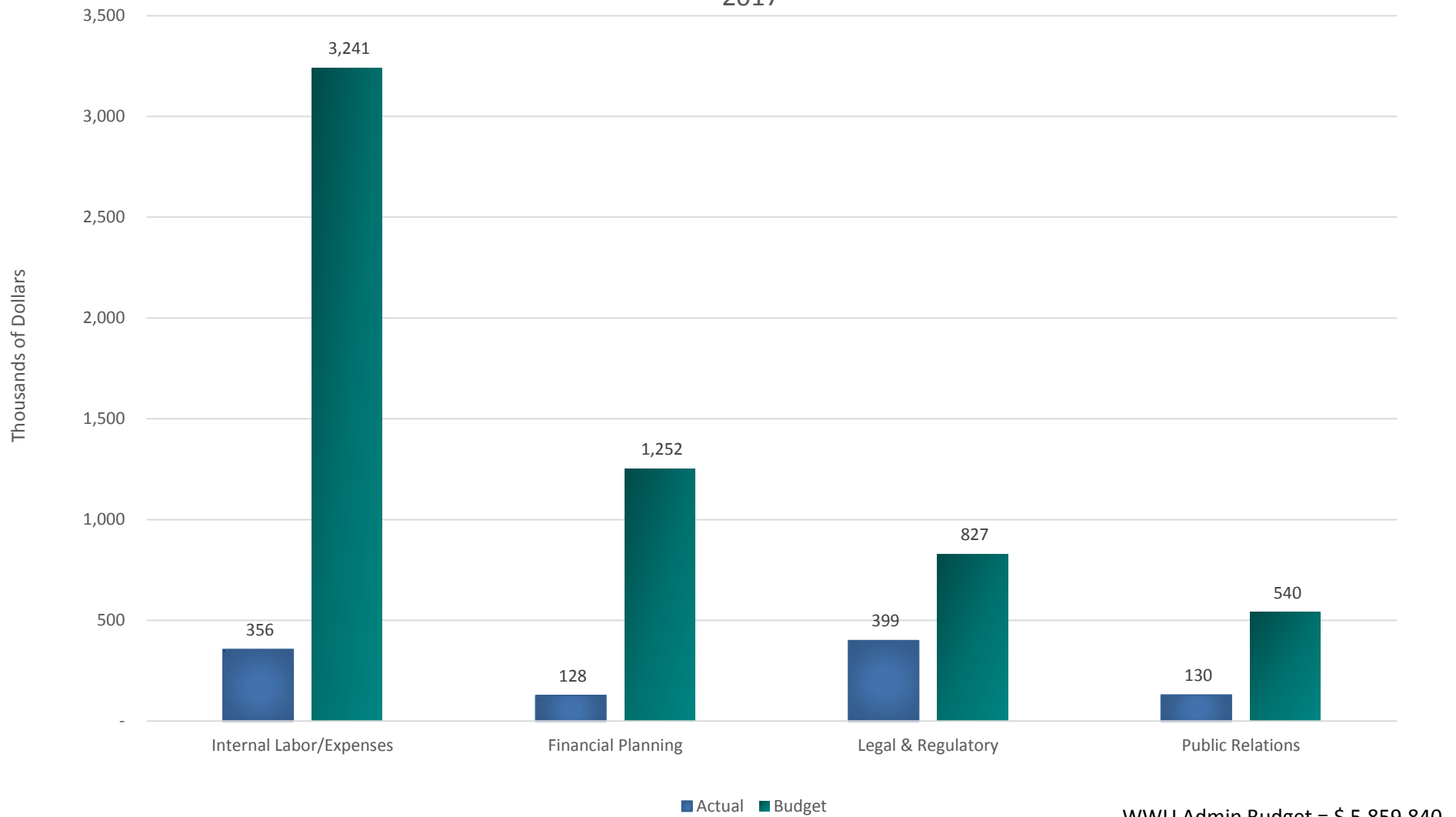
WWU  
TRANSMISSION AND DISTRIBUTION  
BUDGET VARIANCE ANALYSIS

Project	Project #	Description/Location	Budget	Current Estimate	PJC Total	Aldermanic 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.	\$2,787,447	\$ 74,233	\$ 74,233	14	Bill Boyle	November 2017
WM offsets from WSB from Genesee Road to Fiddlers Creek Drive	M00501	Water Main offsets to accommodate changes in the storm sewer and roadway alignments. Project run by WDOT.		\$ 250,000	\$ 14,036	6 7 13 14	Adam Jankowski Daniel J. Manion Dean Lemke Bill Boyle	Fall 2018
WM offsets from WSB from Northview to Rolling Ridge Drive	M00502	Water Main offsets to accommodate changes in the storm sewer and roadway alignments. Project run by the City.		\$ 351,229	\$ 351,229	5 14	Peter Bartels Bill Boyle	November 2017
N Grand - 5 Points to Wisconsin and South St - Clinton to Grand Ave.	M00507	Replace 600 feet of 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	\$ 259,742	11	Erik Helgestad	June 2017
Prairie Ave - College to St Paul Ave.	M00508	Cancelled by the City until a Future Year		\$ -	\$ 794			Cancelled
Caroline St - Arcadian to Main St.	M00509	Replace 750 of 6" main from 1911 with 8" on Caroline between Arcadian and Main Street. Project done with City Sanitary.		\$ 181,045	\$ 181,045	3 11	Cassie Rodriguez 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	\$ 264,872	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	\$ 362,947	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.		\$ 43,769	\$ 43,769	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	\$ 7,260	2	Eric Payne	May 2017
Routine Projects			\$ 2,787,447	\$ 1,882,181	\$1,559,928			
Misc Routine			\$ 558,809	\$ 558,809	\$ 558,809			
Total Routine			\$ 3,346,256	\$ 2,440,990	\$2,118,737			
West Ave from Wisconsin to Glenwood, West on Glenwood, under Fox River to Mountain Ave.	GLCD0008	Replacing 8" from 1913 on West from Wisconsin to Glenwood, 6" from 1927 on Glenwood, with 24" main, then new 24" crossing river, passing through Grede Park and connecting to 20" main on Mountain. Project done with City Sanitary.	\$ 1,924,600	\$ 1,157,429	\$1,157,429	2 11	Eric Payne Erik Helgestad	December 2017
Distribution System Improvements			\$1,924,600	\$ 1,157,429	\$1,157,429			
Total Transmission & Distribution			\$ 5,270,856	\$ 3,598,419	\$3,276,167			

**Bold Totals are Based on Bids**



Future Water Supply  
WWU Admin Sub Costs  
2017





# 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 Nos. 14 and 15. The following Audit Issues were identified:

- Direct labor overcharges totaled \$823.54 for two Greeley and Hansen employee on Invoice No. 14 (AI-004 and AI-006).
- CH2M billings reflected on Invoice No. 14 included non-allowable charges totaling \$972.97 (AI-005).
- Direct labor overcharges totaled \$1,262.76 for one Greeley and Hansen employee on Invoice No. 15 (AI-007).

Greeley and Hansen stated the overcharges will be corrected on Invoice No. 16. After the applicable multiplier and markups, a credit totaling approximately \$7,544 should be reflected on Invoice No. 16.

### Current Period Request for Information

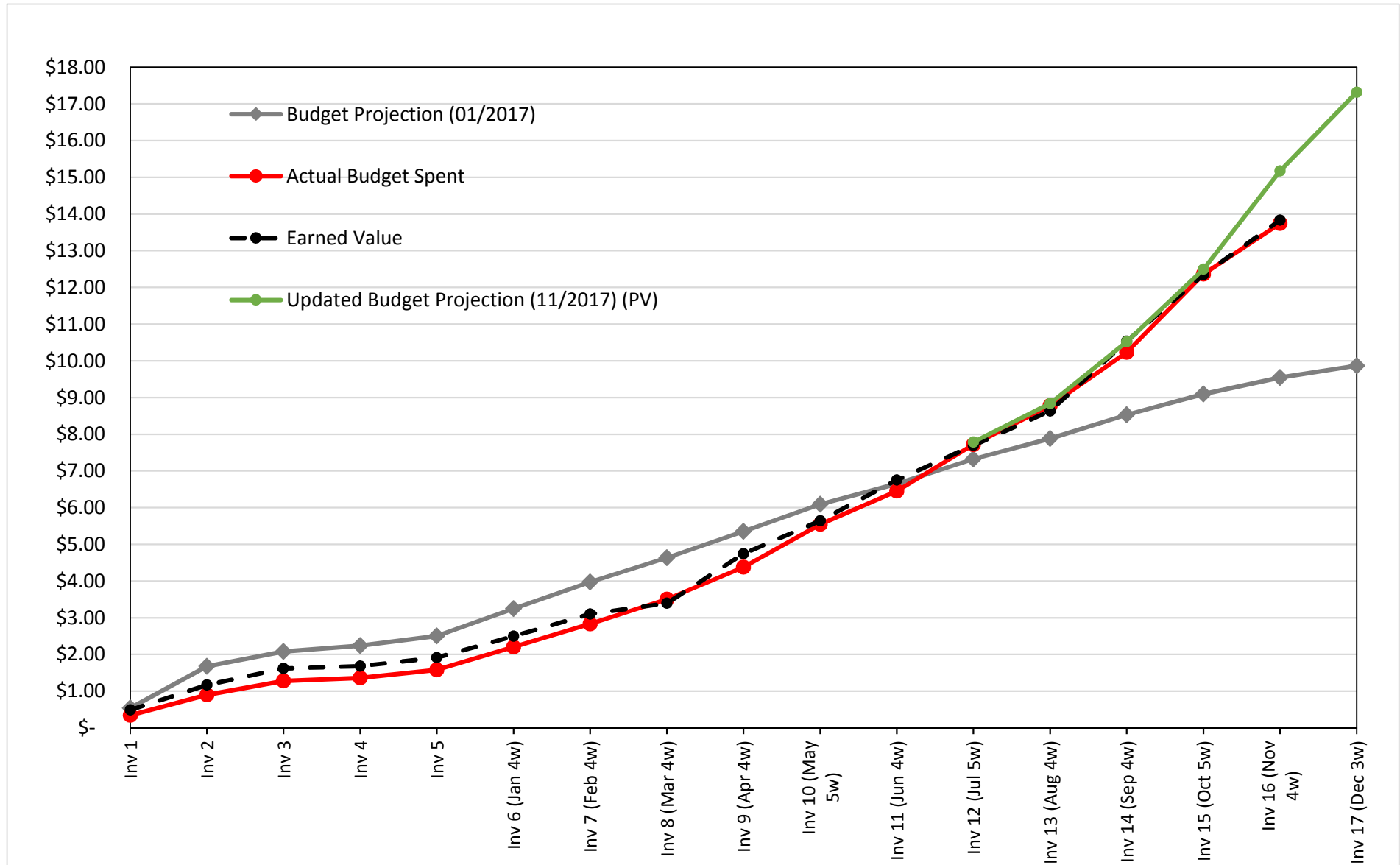
During the current period, additional documentation was requested to support the following charges:

- Greeley and Hansen reimbursable direct costs totaling \$ 786.76 on Invoice No. 14 (RFI-015).
- Time card support for Greeley and Hansen labor charges totaling \$3,211.78 on Invoice No. 14 (RFI-016).
- Cost support for PSI reimbursable direct costs totaling \$59,528 on Invoice Nos. 14 and 15 (RFI-017 and RFI-018).

Greeley and Hansen provided all requested documentation.

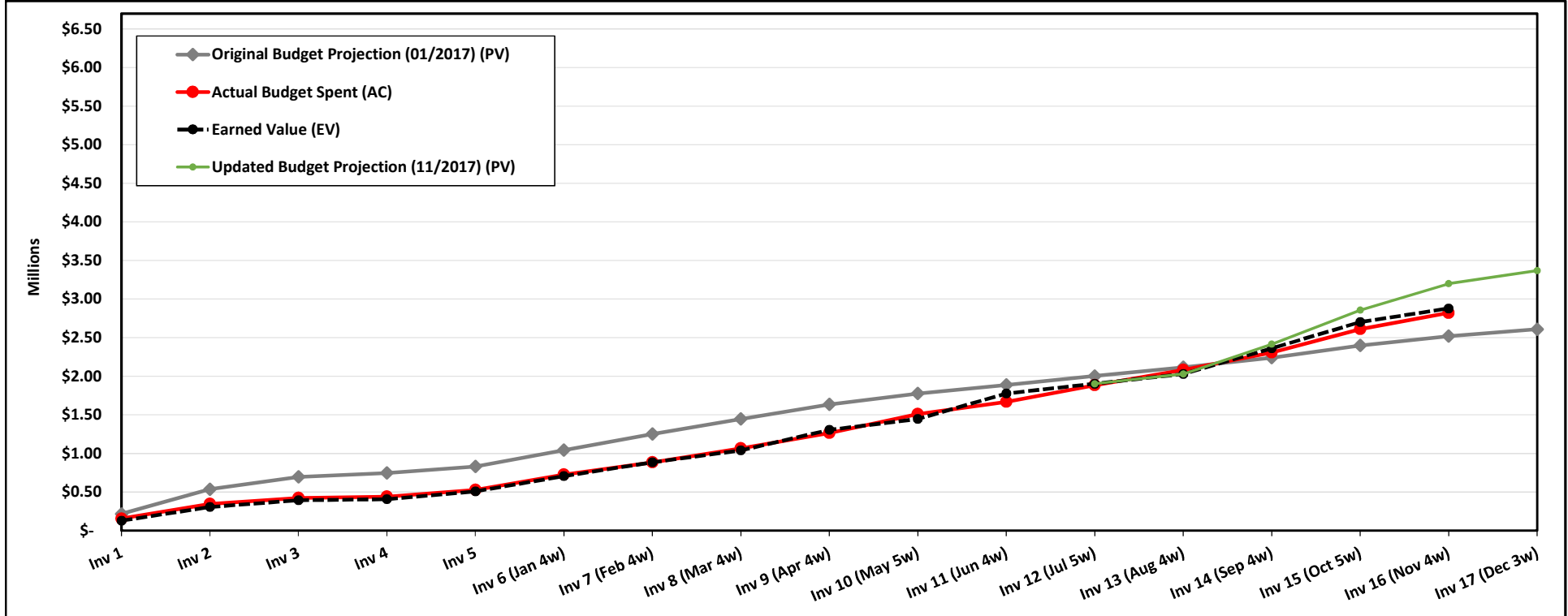
## Exhibit 5: Earned Value Analysis

**Great Lakes Water Supply Program PM/CM  
Program  
Earned Value Chart  
Phase 1 and 2  
(Excluding Allowances and Contingencies)**



**% Spent 74.1%**  
**Actual Budget Spent \$13,739,547.10**

**Schedule Performance Index (SPI) 0.91**  
**Cost Performance Index (CPI) 1.01**



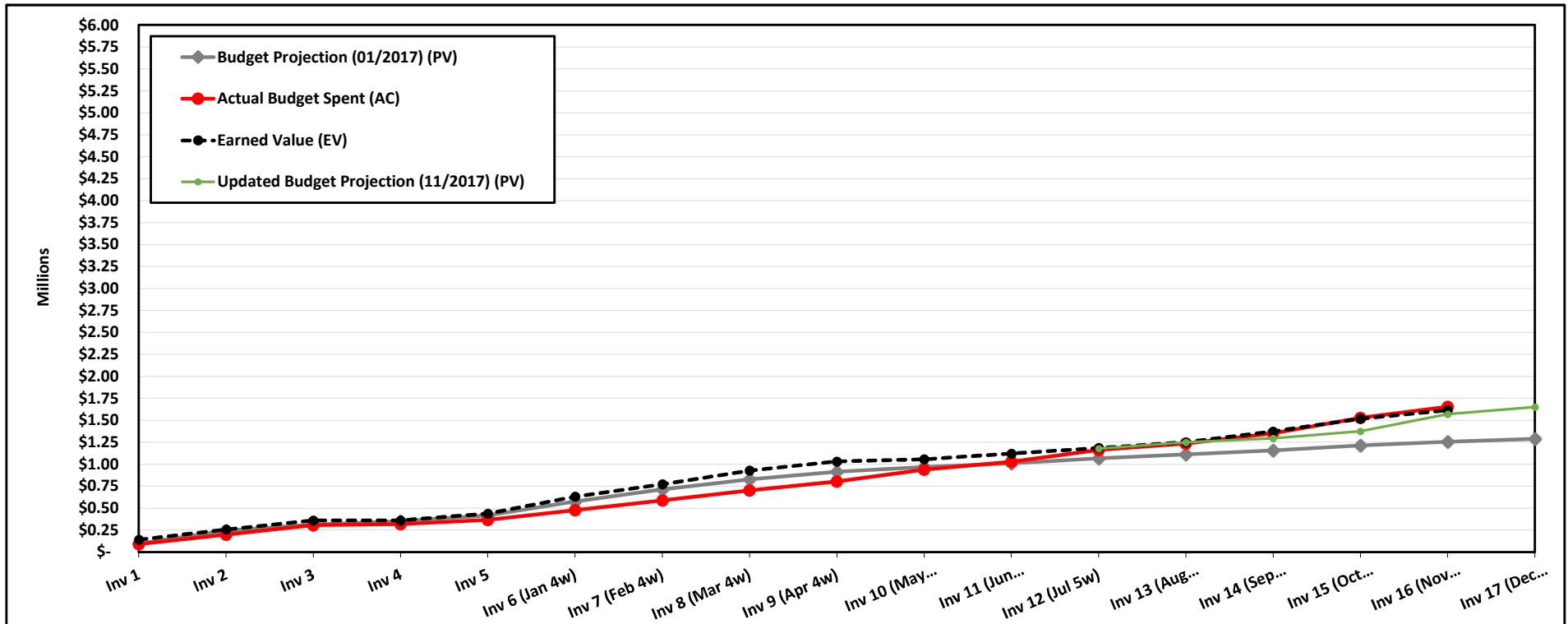
Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 3,387,225.00
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 497,791.94
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 58,320.26
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ (320,035.90)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.02
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.90
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.92
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 3,318,612.93
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ 68,612.07

(1) Task 1 Budget at Completion includes Program Contingency Authorizations

Task 1	Program Management Plan/Progress
	<ul style="list-style-type: none"> <li>Performed QM Review of four Program deliverables: Draft Program Design Report, Dissipative Cooling Technical Memo, Assessment of Root River Water Quality Improvements with Return Flow Technical Memorandum.</li> <li>Submitted and obtained approval of a Task Authorizations and executed 3 Subconsultant Amendments for the approved Budget Shift.</li> <li>Held six (6) Program meetings.</li> <li>Incorporated detailed Construction Package duration evaluation into Program Schedule.</li> </ul>

Task 1	Program Management Challenges
	<ul style="list-style-type: none"> <li>The Task 1 budget was increased by the 2017 Milwaukee Route Study Amendment approved by the Commission at their November 2017 meeting.</li> <li>It is noted that the Updated Budget Projection included effort to complete the Preliminary Design Report if Oak Creek was selected as the wholesale water supplier. With the selection of Milwaukee as the wholesale water supplier, the Preliminary Design Report will be completed in early 2018. This accounts for the majority of the gap between the planned and earned values for Task 1. The rest is accounted for in reduced QM time and efficiencies gained in invoicing. The Task 1 year-end gap is anticipated to be approximately \$300,000.</li> </ul>





Note: Task 2 amount for Invoice 6 was reported incorrectly in the previous version of this earned value analysis. The corrected cumulative amount is \$984.33 higher.

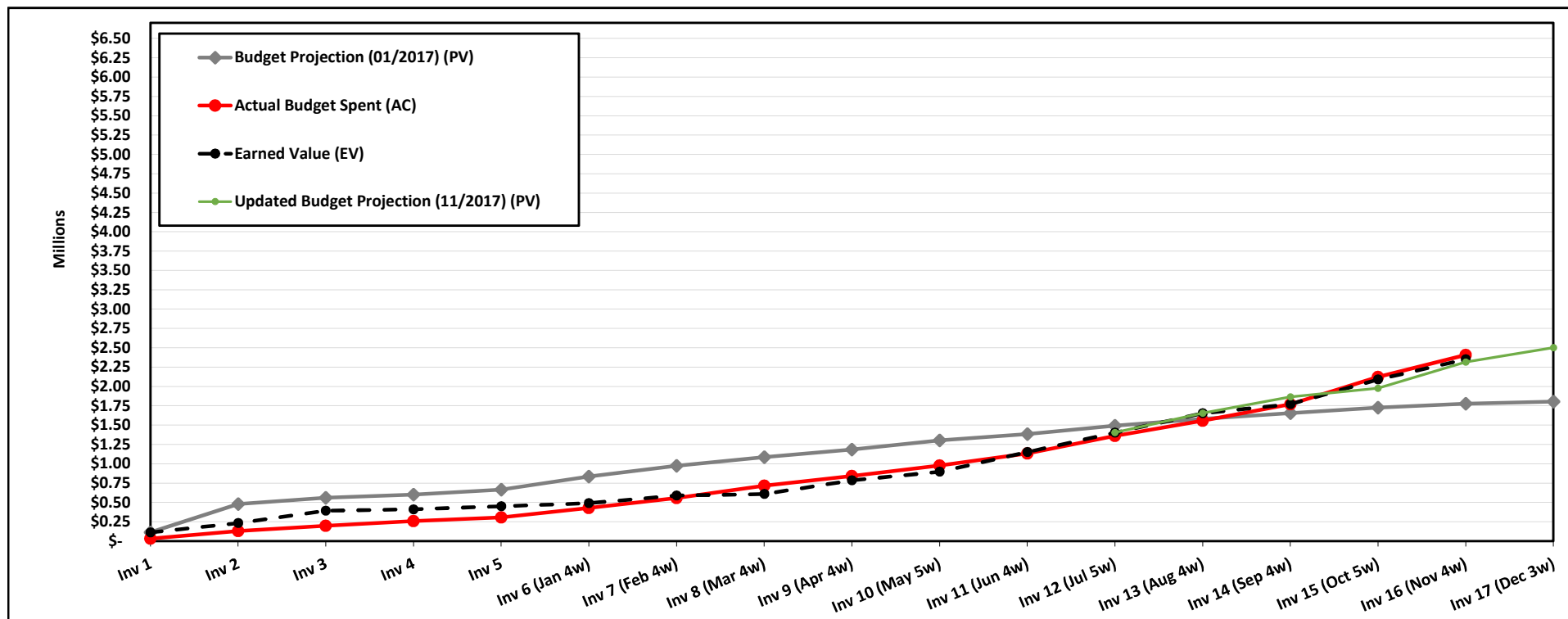
Earned Value Calculations	
Budget at completion <sup>(BAC)</sup> (BAC)	\$ 1,683,420.57
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 68,889.32
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ (37,259.98)
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ 47,672.71
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	0.98
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	1.03
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	1.01
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 1,722,233.05
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ (38,812.48)

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

- Assisted with communications and participated in negotiations with Milwaukee officials on final details on an agreement for a Lake Michigan water supply.
- Provided to finalize a handout for common council members to use with constituents to help explain the agreement, as well as a column for the local newspaper by Mayor Reilly.
- Held four (4) Program team meetings.
- Planned, organized and coordinated three Waukesha Open Houses in advance of the December 5, 2017 Common Council meeting.

#### Task 2 Programmatic Support Services Challenges

- The Task 2 budget was increased by the 2017 Milwaukee Route Study Amendment approved by the Commission at their November 2017 meeting.



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

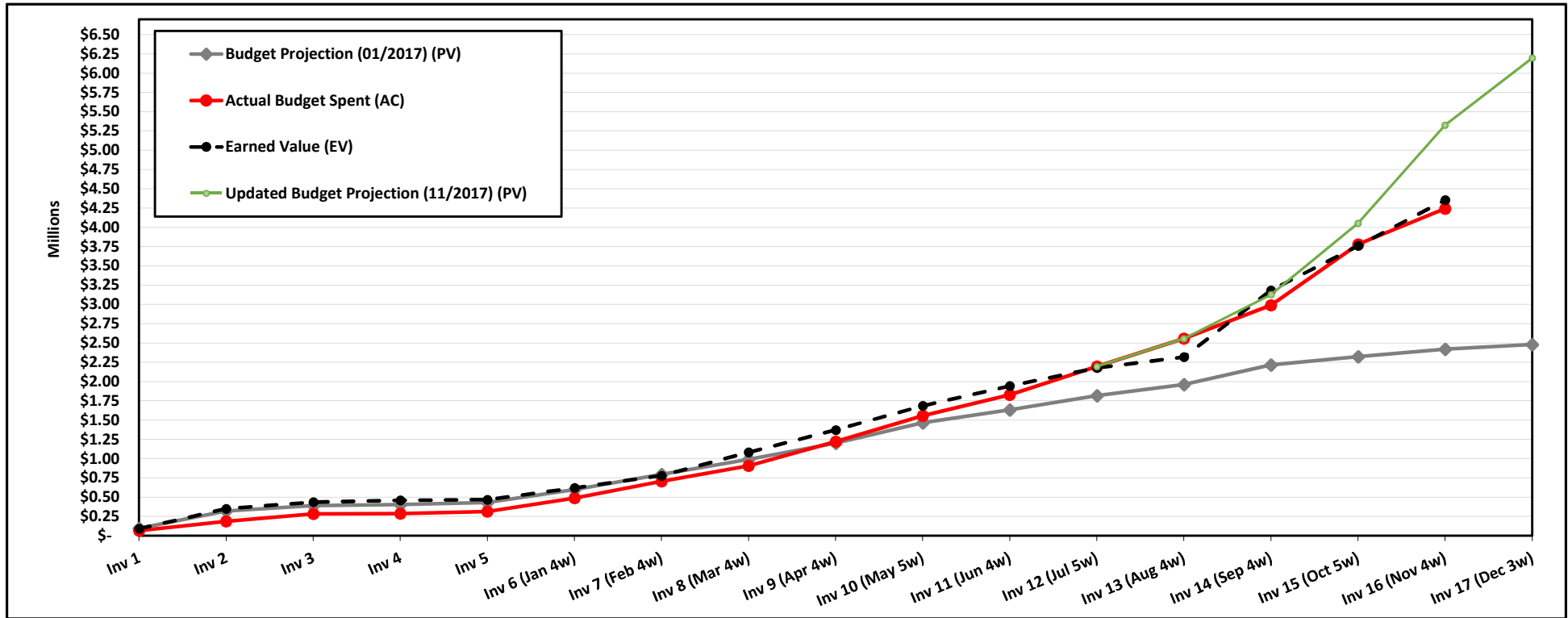
Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 2,940,263.42
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 601,572.65
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ (54,079.86)
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ 36,101.28
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	0.98
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	1.02
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.99
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 3,007,863.25
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ (67,599.83)

#### Task 3 Permitting Plan/Progress

- Submitted three deliverables for QM Review: Dissipative Cooling Technical Memo, Assessment of Root River Water Quality Improvements with Return Flow Technical Memorandum
- Held seven (7) Program meetings.
- Submitted the draft Supplemental Environmental Impact Report for internal Program Team review.
- Obtained permits in the New Berlin, Muskego, Franklin, Waukesha, Greenfield, and Milwaukee County to support field investigations for the Return Flow Corridor and Milwaukee Water Supply Corridor.

#### Task 3 Permitting Challenges

- The Task 3 budget was increased by the 2017 Milwaukee Route Study Amendment approved by the Commission at their November 2017 meeting.



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

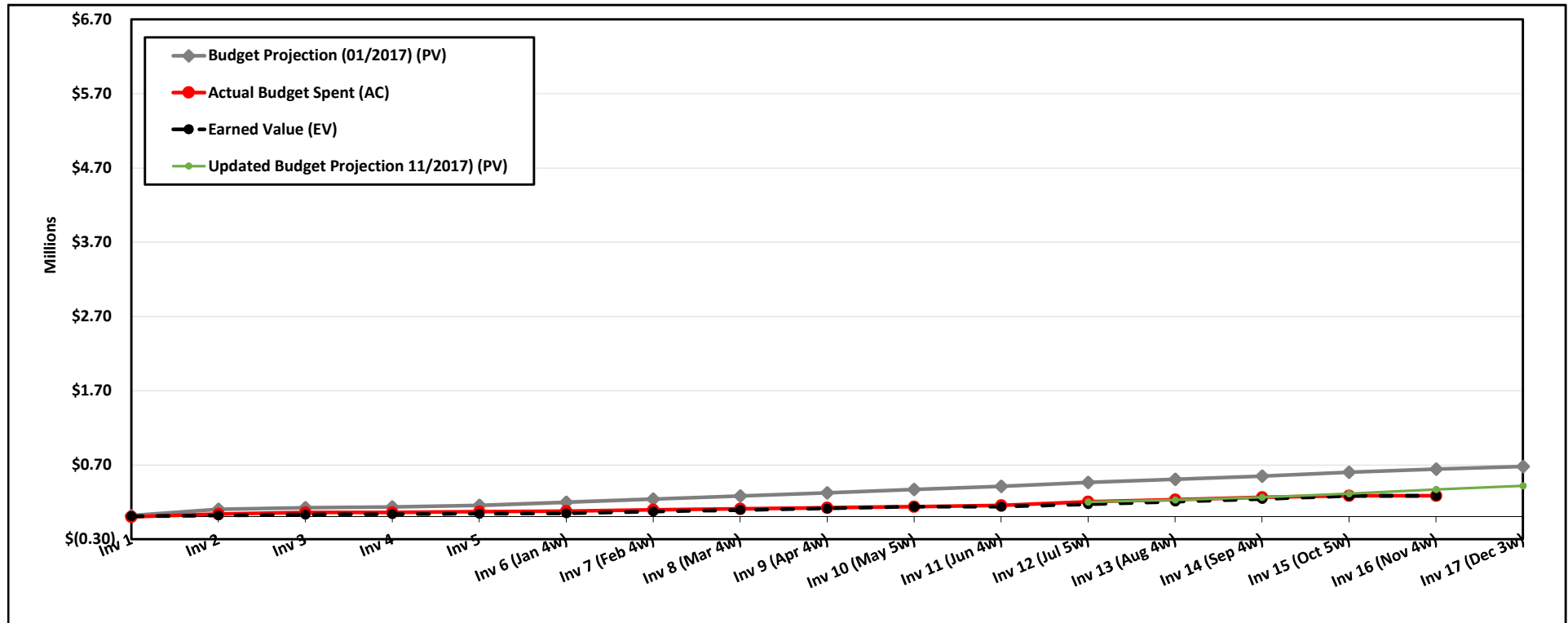
Earned Value Calculations	
Budget at completion <sup>(BAC)</sup> (BAC)	\$ 6,598,831.98
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 2,184,559.61
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 114,613.39
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ (970,855.93)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.03
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.82
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.84
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 6,425,175.33
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ 173,656.65

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

- Submitted the Draft Program Design Report for QM Review.
- Held four (4) Program Team meetings.
- Identified and evaluated feasible Milwaukee Route route sub-alternatives based on economic and non-economic criteria and a route drive.
- Gained consensus on three Milwaukee Route alternatives for further evaluation.
- Initiated desktop analyses, began development of steady state hydraulics, and preliminary horizontal alignments for the three Milwaukee Route alternatives.

#### Task 4 Route Study and Pipeline Challenges

- The Task 4 budget was increased by the 2017 Milwaukee Route Study Amendment approved by the Commission at their November 2017 meeting.
- It is noted that the Updated Budget Projection included effort to complete the Program Design Report if Oak Creek was selected as the wholesale water supplier. With the selection of Milwaukee as the wholesale water supplier, the Program Design Report will be completed in early 2018. This accounts for the gap between the planned and earned values for Task 4. The Task 4 year-end gap is anticipated to be approximately \$1,000,000.



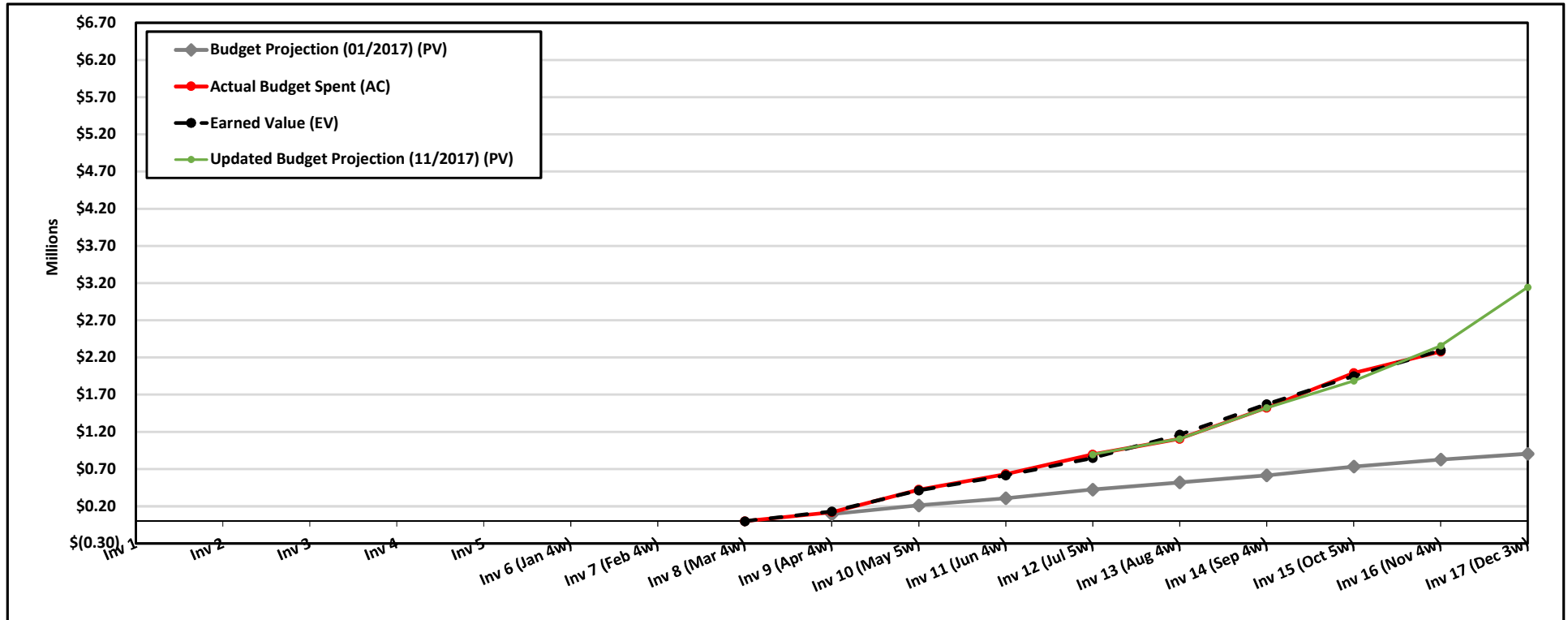
Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 698,405.42
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 409,752.70
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 1,602.82
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ (83,808.65)
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	1.01
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	0.77
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	0.78
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 694,496.10
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ 3,909.32

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

- Initiated scheduling meeting in January 2018 for revisiting pipe loop testing plan in light of selection of Milwaukee as the water supplier.

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

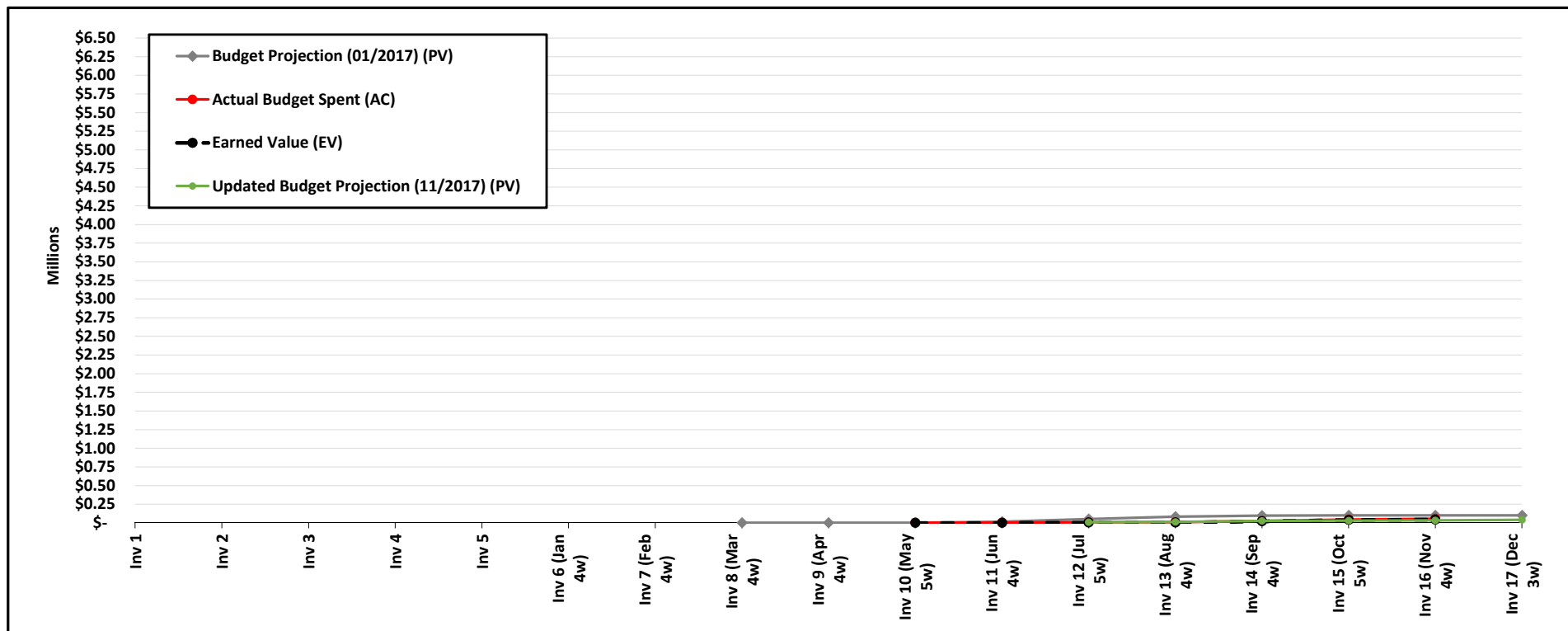
- Selection of the water supplier has resulted in a delay in having the WDNR Water Supply meetings for permitting has impacted the schedule for Pipe Loop Testing and water quality analysis.



Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 3,145,270.73
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 842,945.07
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ 16,973.91
Schedule Variance <sup>(SV)</sup> (SV=EV-PV)	\$ (62,905.41)
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)	0.98
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 3,122,018.79
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ 23,251.94

Task 6 Pump Stations, Storage and Chemical Treatment Plan/Progress
<ul style="list-style-type: none"> <li>Produced the Draft Program Design Report for review by the QM team.</li> <li>Submitted draft Phase 1 Environmental Site Assessment (ESA) of BPS Site for internal review.</li> </ul>

Task 6 Pump Stations, Storage and Chemical Treatment Challenges
<ul style="list-style-type: none"> <li>It is noted that the Updated Budget Projection included effort to complete the Preliminary Design Report if Oak Creek was selected as the wholesale water supplier. With the selection of Milwaukee as the wholesale water supplier, the Program Design Report will be completed in early 2018. This will result in a year-end gap between the planned and earned values for Task 6 of \$400,000.</li> </ul>



Earned Value Calculations	
Budget at completion <sup>(BAC)(1)</sup> (BAC)	\$ 99,105.00
Estimate to Complete <sup>(ETC1)</sup> (ETC1=EAC1-AC)	\$ 66,805.37
Cost Variance <sup>(CV)</sup> (CV=EV-AC)	\$ (10,061.69)
Schedule Variance (SV) (SV=EV-PV)	\$ 9,910.50
Cost Performance Index <sup>(CPI)</sup> (CPI=EV/AC)	0.82
Schedule Performance Index <sup>(SPI)</sup> (SPI=EV/PV)	1.29
Cost /Schedule Index <sup>(CSI)</sup> (CSI=CPI x SPI)	1.05
Estimate at Completion <sup>(EAC1)</sup> (EAC1=BAC/CPI)	\$ 121,464.31
Variance at Completion <sup>(VAC1)</sup> (VAC1=BAC-EAC1)	\$ (22,359.31)

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

- Construction services planning was provided including determination of possible duration and scheduling of contract packages, required personnel for Construction Engineering Inspection (CEI) services and scope of CEI services.
- Development of draft construction procedure manual has been initiated.

#### Task 7 Construction and Construction Management Challenges

- No challenges identified.