



## Legislation Details (With Text)

**File #:** 2018-840      **Version:** 1      **Name:**

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**File created:** 7/20/2018      **In control:** Board of Directors

**On agenda:** 7/25/2018      **Final action:** 7/25/2018

**Title:** Proposed Amendment No. 1  
Contract No.: GLWA-CS-039  
Units of Service for Non-Master Metered Customers of  
Great Lakes Water Authority and System Water Audit

**Sponsors:** Suzanne Coffey

**Indexes:** Planning Services

**Code sections:**

**Attachments:**

| Date      | Ver. | Action By          | Action              | Result |
|-----------|------|--------------------|---------------------|--------|
| 7/25/2018 | 1    | Board of Directors | Approved as Amended | Pass   |

**Proposed Amendment No. 1**  
**Contract No.: GLWA-CS-039**  
**Units of Service for Non-Master Metered Customers of**  
**Great Lakes Water Authority and System Water Audit**

Agenda of: July 25, 2018  
Item No.: **2018-840**  
Amount: \$495,000.00

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

**FROM:** Sue F. McCormick  
Chief Executive Officer  
Great Lakes Water Authority

**DATE:** July 23, 2018

**RE:** **Proposed Amendment No. 1**  
**Contract No.: GLWA-CS-039**  
**Units of Service for Non-Master Metered Customers of**  
**Great Lakes Water Authority and System Water Audit**  
**Vendor: Black & Veatch Ltd. of Michigan**

### MOTION

Upon recommendation of Suzanne Coffey, Chief Planning Officer, Interim Chief Operating Officer - Wastewater, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), upon the understanding that the principal work on this engagement will be completed in time for inclusion in the Fiscal Year 2019-20 charges, authorizes the Chief Executive Officer (CEO) to enter into Contract No. GLWA-CS-039, Amendment No. 1, "Units of Services for Non-Master Metered Customers of Great Lakes Water Authority and System Water Audit" with Black & Veatch Ltd. of Michigan and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

This Amendment totals \$495,000.00 and adds five months to the contract duration. This brings the total contract cost to a not to exceed value of \$1,300,704.00 and a total duration of two years and five months.

### **BACKGROUND**

The Great Lakes Water Authority (GLWA) entered into a contract with Black & Veatch Ltd. of Michigan for "Units of Service for Non-Master Metered Customers of GLWA and System Water Audit" on January 31, 2017. The project has two phases. The Phase 1 work is complete and included the reestablishment of water demands for Detroit, Dearborn and Highland Park as well as the performance of a short-term water audit for the regional water system. At the end of Phase 1, Black & Veatch prepared a report which included their recommendations for maximum day, peak hour, annual volume, distance and elevation for these non-master metered customers among other technical conclusions and recommendations. The second phase of the work was planned to accomplish a number of follow-on tasks including but not limited to identifying data gaps from Phase 1, conducting district metered areas pilot testing (DMAs), preparation of long-term master metering plans and the development of both a long-term water audit approach and a written process for annual wholesale meter audits. Lastly Phase 2 was scoped to include the preparation of a second final report. As the Phase 1 work came to a completion and thoughts turned to Phase 2, it became apparent that both GLWA and its member partners wanted to broaden the scope of the Phase 2 work.

### **JUSTIFICATION**

As was referenced above, the Phase 1 activities identified areas where data can be refined, and uncertainty reduced with the addition of actual flow data and further analyses. Data refinement such as this will increase confidence in the results. The primary drivers for the additional work along with details of what will be done have been detailed below.

- ***Attend, Conduct and/or Present at Additional Meetings:*** Given the complexity and gravity of the work being conducted in Phase 2, GLWA is anticipating the need for Black & Veatch to attend and/or present at many additional meetings. At present we are meeting with Dearborn

weekly and Detroit every other week to prepare to launch the DMA work. This level of engagement was not anticipated but is now clearly necessary. The additional meetings are not only needed with the non-master metered customers but also internally with GLWA team members and with GLWA's member partners through the Outreach process.

- **Improve Quantification of Water Losses:** One of the most material elements of the Phase 1 study was the estimates for water losses. The most effective way to quantify water losses without master meters is to field measure flows in DMAs. Specifically, Black & Veatch has recommended conducting four additional DMAs for Phase 2. This will bring the total number of DMAs for Dearborn to two and for Detroit to four. Presentations have been made to GLWA's member-partners through the Outreach process and the current approach was supported. With the addition of the DMAs, the supporting work will also increase. This includes additional detailed planning, hydraulic modeling, and coordination of activities with Detroit and Dearborn staff will be necessary.
- **Provide Third Party Validation of Water Audit Elements:** To improve the regional system water audit, both reestablishment of pump curves for the water production pumps as well as an investigation into the status of blow-off valves in the transmission system were initiated. GLWA has asked Black & Veatch to provide third party assistance and validation of this work. Neither of these initiatives were anticipated when the project was scoped. They are important elements and are now intended to be incorporated in the final Phase 2 report.
- **Development of FY2020 Units of Service for Non-Master Metered Customers:** Although it was anticipated that a report would be needed to memorialize the Phase 2 work, draw conclusions and make recommendations, it was not anticipated that Black & Veatch would be developing another fiscal year's demands for the non-master metered customers. Given the results from Phase 1 and the timeline of the field work in Phase 2, GLWA believes it is appropriate to request Black & Veatch to complete this element.

### **PROJECT MANAGEMENT STATUS**

|                        |  |
|------------------------|--|
| Original Contract Time | Two (2) years - (01/31/17 to 01/31/19)                     |
| Amendment No. 1        | Five (5) months - (02/01/19 to 06/30/19)                   |
| New Contract Time      | Two (2) years and Five (5) months - (01/31/17 to 06/30/19) |

### **PROJECT ESTIMATE**

|                         |                       |
|-------------------------|-----------------------|
| Original Contract Price | \$805,740.00          |
| Amendment No. 1         | <u>\$495,000.00</u>   |
| New Contract Total      | <u>\$1,300,704.00</u> |

**FINANCIAL PLAN IMPACT**

**Summary:** This adjustment in scope was discussed during the development of the FY 2019 Financial Plan. The final value of the proposed contract was updated to the Board Approved FY 2019 Budget.

**Funding Source:** Operations and Maintenance Budget

**Cost Center:** Systems Analytics and Meter Operations (Centralized Services Cost Center 886401)

**Expense Type:** Contractual Professional Services (5910-886401.000-617903-WS7900)

**Estimated Cost by Year and Related Forecast Variance:** See table below.

| <u>Fiscal Year</u>              | <u>Current Forecasted Amount</u> |
|---------------------------------|----------------------------------|
| FY 2019 Financial Plan Forecast | \$495,000.00                     |
| Maximum Contract                | <u>\$495,000.00</u>              |
| Estimated Variance              | \$ <u>0.00</u>                   |

**COMMITTEE REVIEW**

This item is being presented directly to the full Board of Directors for consideration.

**SHARED SERVICES IMPACT**

This item does not impact the shared services agreement between GLWA and DWSD.