



Legislation Details (With Text)

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Title: Proposed Change Order No. 1
Contract No. GLWA-CS-277
Fourteen Mile Road PCCP Main Condition Assessment and Pilot Study Evaluation

Sponsors: Cheryl Porter, Todd King

Indexes: Water Operations

Code sections:

Attachments:

Date	Ver.	Action By	Action	Result
12/19/2019	1	Board of Directors	Approved	Pass
12/11/2019	1	Operations and Resources Committee	Recommended for Approval	Pass

Proposed Change Order No. 1

Contract No. GLWA-CS-277

Fourteen Mile Road PCCP Main Condition Assessment and Pilot Study Evaluation

Agenda of: December 19, 2019

Item No.: **2019-424**

Amount:	Original Contract	\$2,277,315.00
	Proposed Change Order No. 1	0.00
	Total Contract Amount	\$2,277,315.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: December 3, 2019

RE: Proposed Change Order No. 1
Contract No. GLWA-CS-277
Fourteen Mile Road PCCP Main Condition Assessment and Pilot

Study Evaluation

Vendor: Pure Technologies, Inc.

MOTION

Upon recommendation of Cheryl Porter, Chief Operating Officer - Water and Field Services, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into Contract No. GLWA-CS-277 Change Order No. 1 time extension "Fourteen Mile Road PCCP Main Condition Assessment and Pilot Study Evaluation" with Pure Technologies, Inc., at a cost not to exceed \$2,277,315.00 for an increased duration of thirteen (13) months for a total contract duration of 31 months**; and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

The GLWA has over 430 miles of prestressed concrete cylinder pipe (PCCP) pipe installed throughout the system. Recent catastrophic failures have occurred over the last few years include: (1) an 84-inch diameter transmission main near North Service Center, (2) a 48-inch diameter transmission main in Farmington Hills, and (3) a 48-inch diameter main in Livonia. The need to conduct evaluations of high consequence mains is clear. This innovative pilot test provides a condition assessment, evaluation, and long-term monitoring of a 9-mile length of the 14 Mile Road transmission main between the Franklin and Haggerty booster pump stations. This single main has no redundant looping and the proposed Haggerty Loop to connect the Eight Mile Road transmission main and the Haggerty booster pump station is still in the design stage with a multi-year construction period.

The purpose of this pilot study will be to develop a set of techniques that will contribute to the overall program to determine the best approach in evaluating the condition of PCCP mains within the system. The unique features of this program, that limit it to a single source are:

1. SmartBall - leak and air pocket detection tool
2. PipeDiver - electromagnetic inspection tool to detect broken prestressed wires within the PCCP mains. These broken wires are predecessors to the catastrophic nature of the PCCP main failure.
3. Soundprint - an acoustic fiber optic monitoring system to monitor for broken prestress wires after the PipeDiver evaluation.

All three of these technologies will be deployed in the transmission main under service. GLWA is unaware of any other technologies or vendors that can complete the objectives of the study while maintaining the transmission main in service.

JUSTIFICATION

The cost of repair after the 14 Mile Road break was approximately one million dollars. This direct cost does not include the indirect costs to businesses for the loss of water during the emergency break and subsequent boil water advisories.

GLWA staff recommends that the Board approve this time only change order to the pilot study to provide additional time to review the SmartBall and PipeDiver data to consider the implications for monitoring with the acoustic fiber optic system.

PROJECT MANAGEMENT STATUS

Original Contract Time	18 months
Proposed Change Order No. 1	13 months
New Contract Time	31 months
New Date for Final Completion	December 30, 2020

PROJECT ESTIMATE

Original Contract Price	\$ 2,277,315.00
Proposed Change Order No. 1	0.00
New Contract Total	\$ 2,277,315.00

FINANCIAL PLAN IMPACT

The proposed change order is an extension of time only with no change in contract price. Therefore, no financial impact exists.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on December 11, 2019. The Operations and Resources Committee unanimously recommended that the GLWA Board adopt the resolution as presented.

SHARED SERVICES IMPACT

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