

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: February 10, 2016
SUBJECT: Hatchery Pipeline and Hydroelectric Project
Waterline Industries Corp
Contract 7235



COMMITTEE: Water Policy & Oversight

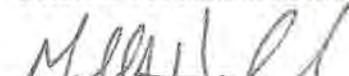
 INFORMATION

 X VOTE


Michele S. Gillen

Director of Administration

John P. Vetere, Deputy Chief Operating Officer
A. Navanandan, P.E., Chief Engineer
Maureen McAvoy, P.E., Program Manager
Pamela Heidell, Policy & Planning Manager
Preparer/Title


Michael J. Hornbrook

Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract 7235, Hatchery Pipeline and Hydroelectric Project, to the lowest responsible and eligible bidder, Waterline Industries Corp. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$3,657,677, for a contract term of 545 calendar days from the Notice to Proceed.

DISCUSSION:

The scope of work under this contract consists of a new water pipeline from the MWRA's Chicopee Valley Aqueduct (CVA) to the Division of Fish and Wildlife's McLaughlin Fish Hatchery in Belchertown and construction of a new MWRA 60 kilowatt hydroelectric facility. When completed, the 20-inch water pipeline will tap raw water off of the CVA just prior to the William A. Brutsch Water Treatment Facility, and convey six million gallons a day (mgd) of untreated water (except during periods of drought) first to a new hydropower turbine/generator on MWRA's grounds, and then to a pipeline terminating less than a mile away at the McLaughlin Fish Hatchery's water supply distribution system. (See Figure attached.)

This project has been included in MWRA's Capital Improvement Program budget since FY09 and was first identified during discussions concerning MWRA's water system expansion and MWRA's current discharges from Quabbin Reservoir.

At present, the hatchery uses a combination of water from on-site wells and water withdrawn directly from the Swift River, with river withdrawals being the dominant source. Currently, when MWRA demand is low and Quabbin Reservoir's elevation is high and the reservoir is stratified,

warmer surface water spills over the dam. These warmer water spillway discharges in the summer can be detrimental to the McLaughlin Fish Hatchery and are an ongoing concern. The water to be conveyed by the new pipeline will be withdrawn from the deeper waters of Quabbin Reservoir and will provide a continuous, reliable supply of cold water directly to the hatchery. The pipeline will replace the hatchery's river withdrawals and will also reduce electrical demand at the hatchery: with MWRA water, the need for the hatchery to pump water from the Swift River is eliminated under typical conditions, reducing the hatchery's electrical demand by an estimated 588,000 kWh annually. Ultimately, flows in the Swift River downstream of the hatchery would also be supplemented by six mgd, since after circulation through the hatchery's raceways and treatment, the water would be discharged to the Swift River.

Because of its multiple environmental (and operational) merits, the project has been embraced by a number of agencies, which have provided funding for much of the project's costs. In June 2015, a Memorandum of Agreement (MOA) was executed whereby the Massachusetts Division of Fisheries and Wildlife and the Massachusetts Department of Fish and Game transferred \$500,000 and \$2 million, respectively, to MWRA to fund MWRA's costs of the design, permitting, and construction of solely the pipeline component of the project. Funds are being held in MWRA's name in an interest-bearing account and should MWRA not use all of the funds provided to complete the pipeline, unused funds will be returned. For the hydropower component, a total of \$577,620 has been secured through two separate grants, one from the MA Clean Energy Center, the other from the EOOEA Leading-by-Example Program. MWRA will receive payment from NGRID for the projected 440,000 kWh of hydropower that MWRA will export to the grid and will also receive Renewable Energy Certificates. Staff conservatively estimate that these revenue streams will be approximately \$50,000-\$60,000 annually: revenues would be higher if net metering provisions for hydropower recommended by the MA Department of Public Utilities are enacted.

Procurement Process

Contract 7235 was advertised and bid in accordance with Massachusetts General Laws, Chapter 149. Six bids were received and opened on January 26, 2016 with the following results:

<u>Bidder</u>	<u>Bid Amount</u>
<i>Engineer's Estimate</i>	\$2,985,259
Kingsbury	\$3,580,000
Waterline Industries Corporation	\$3,657,677
Daniel O'Connell's Sons, Inc	\$3,926,000
Winston Builders	\$3,970,889
Wes Construction Corporation	\$4,987,270
Williams Collins Co. Inc	\$5,198,270

The low bidder, Kingsbury, was found to be not certified by DCAM, and staff determined that Waterline Industries Corp. was the lowest responsive bidder and that Waterline Industries meets all the requirements of the bid. Waterline's bid is 22.5% above the Engineer's Estimate. The bid price for General Requirements (includes project management, traffic control, field offices, bonds and insurance, start-up and testing, environmental protection measures during

bonds and insurance, start-up and testing, environmental protection measures during construction) is approximately \$300,000 higher, or double, the Engineer's Estimate. In addition, the filed sub-bids for roofing, electrical, miscellaneous metal and masonry associated with the powerhouse total approximately \$100,000 more than the Engineer's Estimate; and the cost for the hydroelectric equipment (water to wire package) is approximately \$83,000 greater than the Engineer's Estimate. The Engineer's Estimate for SCADA/controls also appears to be less than what the contractor has budgeted.

Staff reviewed the scope of work with Waterline and determined that the Waterline understood all of the various elements and types of work required in this contract. References for Waterline were checked and found to be satisfactory. Staff have concluded that Waterline Industries Corp. possesses the skill, ability, and integrity necessary to perform the work under this contract and is qualified to do so. Staff have further determined that the bid price is reasonable, complete, and includes payment of prevailing wages, as required. Therefore, staff recommend that Contract 7235 be awarded Waterline Industries Corp. as the lowest responsible and eligible bidder.

BUDGET/FISCAL IMPACT:

The Approved FY16 CIP includes \$1,960,662 for Contract 7235 (pipeline) and \$450,000 for Contract 7323 (hydropower) for a total of \$2,410,662. The proposed contract award is \$3,657,677.

Total funding for the design, permitting, engineering services during construction (ESDC), and construction of the project that is being provided by outside sources is \$3,077,620. The sum of Waterline's construction bid, and MWRA's existing design and ESDC contract (Original Contract Award plus Amendment 1) for design, permitting and ESDC is \$4,472,254. Therefore, MWRA's capital contribution to the project, based on the bid amount and costs associated with design, permitting, and ESDC, is \$1,394,634.

Hydropower revenue will help to offset MWRA's capital contribution. MWRA is pursuing further financial assistance from the Division of Fisheries and Wildlife and the Clean Energy Center, potential reduction in ancillary construction costs (e.g., utilizing MWRA or DCR buildings in lieu of temporary construction trailers) and utilizing MWRA staff in lieu of consultant services during construction and resident engineering. There may also be future opportunities to increase revenue from energy generation, including changes in metering regulations to benefit hydropower and potential federal hydropower production incentives.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.24% and 3.6%, respectively. The Affirmative Action & Compliance Unit has reviewed the bids and has determined that Waterline Industries Corp.'s bid is responsive to these requirements.

