



DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. _____
 Meeting Date: January 27, 2015
 Chairperson's Signature Yes No

AGENDA ITEM FORM

SUBJECT: Request Authorization to Issue Purchase Order for Saylorville Water Treatment Plant Ultra-Filtration Membranes

SUMMARY:

- In October of 2005, DMWW entered into an agreement with Zenon Environmental Corporation for delivery and commissioning of ultra-filtration (UF) membranes, reverse osmosis (RO) membranes, and related process equipment that would become the integral treatment components of the Saylorville Water Treatment Plant. The original contract sum was nearly \$4.98 million. There have been two change orders that totaled just over \$132,000. The final contract sum to date is \$5.11 million. With the exception of near \$249,000, all monies associated with this agreement have been paid.
- Commissioning of the membrane equipment was completed in late December 2010. Treated water from the plant was delivered to the distribution system beginning in January of 2011. Continuous operation of the plant began in April of 2011. Zenon Environmental Corporation was acquired by GE Water & Process Technologies during the first two years of plant operation.
- After two years of operation, DMWW observed decreased ultra-filtration membrane performance. The permeability of the membranes had declined and the prescribed chemical cleans were unable to recover the membrane permeability. DMWW worked with GE personnel to perform a variety of special rehabilitative chemical cleans in 2013. In November of 2013, GE was informed that DMWW felt the UF membranes had reached the end of their useful life. The diminished membrane permeability is currently limiting plant production to near 35% of rated design capacity. Improving the production capability of SWTP has become an operational necessity. Restoring production capacity will benefit us in regard to water quality and water volume issues. Additional production at SWTP aids in our efforts to combat disinfection byproduct and nitrate challenges at the other two plants. Customers (Johnston, Polk City and Ankeny) will benefit greatly with a restoration in production capacity to meet their peak demand needs.
- In the 15 months since notification, a variety of proposals, counter proposals, additional investigations, pilot testing, and negotiations have been exchanged and performed. DMWW and GE recently came to agreement in regard to the delivery, commissioning, and price to acquire 840 replacement membrane modules. Details are as follows:
 - 840 modules x \$502/per: \$421,680
 - Shipping-related expenses: \$100,000
 - Commissioning/Programming: \$ 25,000
 - Total: \$546,680
- These replacement modules are the newest version of UF membranes available from GE. The \$421,680 pricing is a compromise between full warranty replacement (\$201,000) and non-warranty replacement (\$630,000).
- Staff recommends issuing purchase order in the amount \$546,680 to GE Water & Process Technologies.
- DMWW and GE have also agreed to commit 11 different items related to recent negotiations to writing. Additional items include the details related to price protection, warranty, training, oversight services, and release of the still-retained \$249,000 associated with the original agreement.

FISCAL IMPACT:

The SWTP Reinvestment portion of the 2015 Capital Budget included \$425,000 designated for membrane replacement. Budgeted funds from Fleur Drive Treatment Plant Reinvestment will be used to cover the additional expenses.

RECOMMENDED ACTION:

Authorize staff to issue a Purchase Order in the amount of \$546,680 to GE Water & Process Technologies.

BOARD REQUIRED ACTION:

Motion to authorize staff to issue a Purchase Order in the amount of \$546,680 to GE Water & Process Technologies.

_____ / _____ Kyle A. Danley, P.E. (date) Water Production Engineer	_____ / _____ Michael J. McCurnin, P.E. (date) Director of Water Production	_____ / _____ William G. Stowe (date) CEO and General Manager
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Attachment: None