

CITY OF YUBA CITY
STAFF REPORT

Date: November 17, 2020
To: Honorable Mayor & Members of the City Council
From: Public Works Department
Presentation by: Diana Langley, Interim City Manager

Summary

Subject: Water Treatment Plant (WTP) Membrane Filter Replacement

Recommendation:

- A. Adopt a Resolution authorizing the purchase of 800 Memcor S10N membrane filtration modules and related appurtenances from DuPont Water Solutions in the amount of \$686,158.50, with the finding that it is in the best interest of the City, and adoption of a Class 1 (Existing Facilities) Categorical Exemption per CEQA.
- B. Authorize a supplemental appropriation and direct the Finance Director to make a budget transfer in the amount of \$686,158.50 from Unallocated Water Reserve Funds to CIP Account No. 1227 (Recurring WTP & Water Storage Improvements).

Fiscal Impact: \$686,158.50 – Account No. 971227 (Recurring WTP & Water Storage Improvements)

Purpose:

To provide reliable water service for City residents and businesses through maintaining water treatment processes in a state of good repair.

Background:

In 2007, the City supplemented its existing granular media filters at the Water Treatment Plant (WTP) with new submerged membrane filters as part of a plant expansion project. The membrane filters consist of thousands of hollow fibers contained in cylinders called modules. Suction pressure pulls raw water through the fiber walls, which collect turbidity and suspended solids. Clean water passes through the hollow core of the fibers.

Siemens Industry, Inc. (Siemens) S10V membrane modules were initially installed. By the summer of 2009, the City notified Siemens of excessive membrane fiber breakage. Siemens evaluated the problem and eventually replaced the S10V membrane modules with stronger S10N ultrafiltration membrane modules in May 2013 after multiple pilot studies and NSF testing. DuPont Water Solutions has since acquired the S10N membrane module line, which is now referred to as Memcor S10N membrane filtration modules.

In October 2019, the State Water Resources Control Board Division of Drinking Water amended the City's permit to include the Memcor S10N membrane filtration modules. These membrane filters are an integral repair part compatible with existing equipment and manufactured exclusively by DuPont Water Solutions. There are no other suppliers of these integral repair parts.

Analysis:

The WTP has two cells consisting of 800 membrane filtration modules each. The membrane modules are reaching the end of their 10-year expected service life. WTP staff have spent 920 labor hours this year "pinning" modules that have deteriorated. This level of effort has become progressively more intensive over the last 12 months.

Staff has evaluated the condition and remaining functional service life of the membrane modules. Currently, Cell #1 has approximately 270 modules in good condition. Staff recommends replacing all 800 modules in Cell #1 and transferring the 270 good modules from Cell #1 into Cell #2. Every module that will be replaced in Cell #2 will have five or less pins and no single module will have over nine. This is expected to allow Cell #2 to operate satisfactorily for another year or two before those modules will need to be replaced.

City staff will install the new modules and transfer modules from Cell #1 to Cell #2.

Fiscal Impact:

DuPont Water Solutions has provided a quote of \$686,158.50 to supply 800 Memcor S10N membrane filtration modules and related appurtenances.

Capital Improvement Program (CIP) Account No. 971227 (Recurring WTP & Water Storage Improvements) has a current balance of approximately \$288,000. Staff recommends retaining this balance for unforeseen improvements required moving forward and transferring \$686,158.50 from Unallocated Water Reserve Funds to CIP Account No. 971227. There are approximately \$4,880,000 in Unallocated Water Reserve Funds available.

Alternatives:

There is no reasonable alternative to replacing the modules. Additional "pinning" of the modules will eventually prevent them from being able to meet water demands.

Recommendation:

- A. Adopt a Resolution authorizing the purchase of 800 Memcor S10N membrane filtration modules and related appurtenances from DuPont Water Solutions in the amount of \$686,158.50, with the finding that it is in the best interest of the City, and adoption of a Class 1 (Existing Facilities) Categorical Exemption per CEQA.
- B. Authorize a supplemental appropriation and direct the Finance Director to make a budget transfer in the amount of \$686,158.50 from Unallocated Water Reserve Funds to CIP Account No. 1227 (Recurring WTP & Water Storage Improvements).

Attachments:

- A. Resolution – Purchase Authorization

Prepared by:

/s/ Kevin Bradford

Kevin Bradford
Deputy Public Works Director – Engineering

Submitted by:

/s/ Diana Langley

Diana Langley
Interim City Manager

Reviewed by:

Finance

City Attorney

SM

SLC by email

ATTACHMENT A

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YUBA CITY
AUTHORIZING THE SOLE SOURCE PURCHASE OF 800 MEMBRANE FILTRATION
MODULES AND RELATED APPURTENANCES FROM DUPONT WATER SOLUTIONS, A
RELATED BUDGET TRANSFER, AND ADOPTION OF A CLASS 1 (EXISTING FACILITIES)
CATEGORICAL EXEMPTION PER CEQA**

WHEREAS, in 2007, the City supplemented its existing granular media filters at the Water Treatment Plant (WTP) with new submerged membrane filters as part of a plant expansion project; and

WHEREAS, the membrane filters consist of Memcor S10N membrane filtration modules, which are an integral repair part compatible with existing equipment and manufactured exclusively by DuPont Water Solutions; and

WHEREAS, the City will be purchasing the Memcor S10N membrane filtration modules directly from the manufacturer with no third-party vendor markup; and

WHEREAS, the State Water Resources Control Board Division of Drinking Water has amended the City's permit to include the Memcor S10N membrane filtration modules; and

WHEREAS, the City has met the requirements to sole source the equipment pursuant to Public Contract Code section 3400(c) and City Purchasing Policies section 8-8.4.2; and

WHEREAS, the City Council now desires to authorize the sole source purchase of 800 Memcor S10N membrane filtration modules and related appurtenances from DuPont Water Solutions.

NOW, THEREFORE, be it resolved by the City Council of the City of Yuba City as follows:

1. The City Council finds that all of the facts set forth in the recitals above are true and correct and incorporated herein.
2. The City Council finds and determines that this project falls within the Class 1 Categorical Exemption set forth in CEQA Guidelines Section 15301, as this contract is to allow for the repair and operation of an existing public water treatment plant facility, involving the replacement of existing membrane filtration modules that will involve negligible or no expansion of the existing facility. Further, none of the exceptions to Categorical Exemptions set forth in CEQA Guidelines Section 15300.2 apply to this project.
3. The City Council finds that a sole source award is appropriate on grounds including that DuPont Water Solutions is the sole manufacturer of Memcor S10N membrane filtration modules, that the City will be purchasing the Memcor S10N membrane filtration modules directly from the manufacturer with no third-party vendor markup, that Memcor S10N membrane filtration modules are an integral repair part compatible with existing equipment, and that Memcor S10N membrane filtration modules are integral to the City's State Water Resources Control Board Division of Drinking Water permit. As such, the City Council finds that it is in the best interest of the City to make a sole source award to DuPont Water Solutions for 800 Memcor S10N membrane filtration modules and related appurtenances.

4. The City Council hereby authorizes the purchase of 800 Memcor S10N membrane filtration modules and related appurtenances from DuPont Water Solutions in the amount of \$686,158.50.
5. The City Council hereby authorizes a supplemental appropriation and directs the Finance Director to make a budget transfer in the amount of \$686,158.50 from Unallocated Water Reserve Funds to CIP Account No. 1227 (Recurring WTP & Water Storage Improvements).
6. This Resolution shall become effective immediately.

The foregoing resolution was duly and regularly introduced, passed, and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on the 17th day of November, 2020.

AYES:

NOES:

ABSENT:

Shon Harris, Mayor

Ciara Wakefield, Deputy City Clerk

APPROVED AS TO FORM
COUNSEL FOR YUBA CITY:

Shannon Chaffin, City Attorney
Aleshire & Wynder, LLP