



Staff Report

TO: Mayor, and City Council Members
FROM: Kristine Day, Assistant City Manager
DATE: January 07, 2020
SUBJECT: City Council Approval of Change Order No. 13 for the Wastewater Treatment Plant Upgrade/Expansion in the Amount Not to Exceed \$404,821.33

Background and Analysis:

On May 7, 2019, staff and the design engineer presented multiple owner initiated change order concepts for the City Council to consider that will provide for better overall operation and efficiency of the new plant.

Wastewater Treatment Plant Change Order No. 13:

Item #1 - Plant Effluent Chemical Area Changes:

One change which was previously presented to the City Council was to add pH adjustment to be able to optimize the RO system performance. Although historical pH at the wastewater treatment plant (WWTP) had been within the desired operating parameters of the RO system, the new plant staff's experience with RO systems requires the ability to have pH flexibility. In addition, the City has implemented a pre-treatment program and the program is changing the pH of the background water coming in to the treatment plant. Therefore, as part of a previously approved MBR chemical storage change order, the City approved the addition of acid storage and dosing in order to lower pH. The City must then adjust pH back up in order to meet discharge requirements. This change order includes facilities to provide bulk storage and dosing for sodium hydroxide for pH adjustment.

Based upon the experience of operation staff, there is a potential for chlorine (used to clean the RO membranes) to come through the RO system and therefore there is a need to have sodium bisulfite to neutralize the chlorine prior to being discharged to Cooper's Creek. This requirement will be part of the plant's new discharge permit. Therefore, bulk storage and chemical dosing pumps are being proposed at the plant effluent.

Each of these areas have concrete chemical containment areas, chemical piping, dosing pumps, analyzers, potable water, chemical mixing system, electrical, lighting, and eyewash showers included.

After further discussion with the Beaumont Cherry Valley Water District, it was decided that any chemical conditioning required for reuse discharge would be performed by BCVWD and the chemical system in the original design would be deleted. The changes address the chemical area near the recycled water pump station.

The original cost estimate for this was \$175,000. The cost for this work is \$404,821.33.

Summary of Change Order No. 13 Costs:

The costs for the change order are as summarized below and will not impact the project schedule:

Item	Cost
Item #1 - RO-Sulfuric Acid Chemical Piping Material Change	\$404,821.33
Total:	\$404,821.33

Wastewater Treatment Plant Change Order Summary:

CO No.	Description	Reason for Change	Amount
1	MBR System Improvements	Enhance the performance of MBR System	\$149,741.00
2	RO System Electrical Modifications & Storm Drain System Material Change	Design & Material Updates	(\$245.00)
3	New Aeration Basin 1 through 3 Excavation	Conflict with Existing Utilities	\$19,998.00
4	Structural and Mechanical Modifications	Pre-Selected Submittals	\$57,450.64
5	Vactor Truck Dump Station Modifications	Conflict with Construction	NTE \$15,000.00
6	EDI/Fine Coarse Bubble Diffuser Equipment	Design Change	\$24,298.00
7	Various Changes – MBR/RO Structural, Site Civil & Headworks	Design Changes	\$59,167.49

	SCADA Design Modifications		
8	Various Changes - Demolition, Piping Realignment, Material Change, and Electric Actuated Valve Voltage Change	Unforeseen Conditions and Value Engineering	\$7,942.00
9	Various Changes - Solids Handling Bldg. Conveyor Capacity Increase, Electrical Yard Vaults Cover Changes, Additional Pothole Investigation and Existing Duct Bank Removal, and Yard Utilities	Design Changes, Conflict with Construction, Owner Requested Changes	\$138,531.73
10	MBR Chemical Area Changes & Other Misc. Changes and Inclement Weather Impact Nov-18 to May-19	Owner Requested Changes & Inclement Weather	\$596,031.05
11	Frontier Internet Provider Duct Bank Modifications, 30-inch MBR & 20-inch Plant Effluent Pipeline Elevation and Alignment Modifications, Additional Safety Required Handrail at Retaining Wall and Generator	Design Changes, & Conflict with Construction	\$81,128.29
12	RO-Sulfuric Acid Chemical Piping Material Change, Solids Feed Pump TE/TSH Thermocouple Elements, Solids Handling Bldg. Changes	Design Changes, Owner Requested Changes	\$91,417.26
13	Plant Effluent Chemical Area Changes	Owner Requested Changes	\$404,821.33
WWTP Contingency	Budget Amount	Change Orders 1-13	Remaining
	\$4,000,000.00	\$1,645,281.79	\$2,354,718.21

Fiscal Impact:

Wastewater Treatment Plant Expansion/Renovation:

The project accounting below represents the status of funds should the change order be approved by City Council. A contingency balance of \$2,354,718.21 would remain should City Council approve this item.

WWTP	Budget Amount	Paid to Date	Remaining
Design	\$2,709,798.23	\$2,556,828.66	\$152,969.57
Construction Management	\$5,308,585.72	\$2,620,177.77	\$2,688,407.95
Equipment	\$252,906.00	\$253,293.50	(\$387.50)
Permits	\$324,776.76	\$79,058.64	\$245,718.12
Construction	\$53,910,737.00	\$26,788,463.64	\$27,122,273.36
Contingency	\$4,000,000.00	\$418,810.11	\$3,581,189.89
Total	\$66,506,803.71	\$32,716,632.32	\$33,790,171.39

Recommended Action:

Approval of Change Order No. 13 for the Wastewater Treatment Plant Upgrade/Expansion in the amount not to exceed \$404,821.33.

Attachments:

- A. Change Order No. 13 - Lyles