



Staff Report

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**File #:** 22-0024

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**REQUEST FOR CITY COUNCIL AND  
CORONA UTILITY AUTHORITY ACTION**

**DATE:** 1/5/2022

**TO:** Honorable Mayor and City Council Members  
Honorable President and Board Members

**FROM:** Public Works Department & Utilities Department

**SUBJECT:**  
First Amendment to the Professional Services Agreement with Dudek for the Mangular Blending Facility, Project No. 2018-13.

**EXECUTIVE SUMMARY:**

On July 15, 2020, City Council approved the award of the Construction Management and Inspection Services Contract to Dudek in the amount of \$663,217 to provide construction management, inspection, materials testing, and public outreach professional services during the construction of the Mangular Blending Facility. The Project includes construction of a new potable water blending facility with pumping and disinfection facilities in Mangular Park, which will enable the beneficial use of groundwater from the Temescal Groundwater Basin. The construction schedule has been extended due to COVID-19 materials and equipment supply disruptions, constructability and operational considerations, and design modifications to provide variable frequency drive pump motors. City staff is proposing to amend the Dudek contract to provide additional construction management and inspection services in the amount of \$120,000 to increase the total contract amount with Dudek under purchase order P21789 to \$783,217.

**RECOMMENDED ACTION:**

**That the:**

- a. City Council authorize the Utilities Department General Manager to execute the First Amendment to Professional Services Agreement P21789 with Dudek of Encinitas, CA to provide construction management and inspection services for the Mangular Blending Facility in the amount of \$120,000 and approve necessary change orders up to the amount provided by Corona Municipal Code Section [3.08.070\(i\)](#).

- b. City Council authorize the Purchasing Manager to issue a change order to purchase order number P21789 in the amount of \$120,000 in accordance with duly authorized and executed agreements and renewals.
- c. City Council authorize the Utilities Manager and City Attorney to negotiate and execute any amendments to this Agreement, which are either non-substantive or are otherwise in compliance with the City Council's actions hereunder.
- d. Corona Utility Authority (CUA) review, ratify and to the extent necessary direct that the City Council take the above actions.

**BACKGROUND & HISTORY:**

On July 15, 2020, City Council approved award of the construction management and inspection services contract to Dudek in the amount of \$663,217 to provide construction management, inspection, materials testing, and public outreach professional services during the construction of the Mangular Blending Facility based on a 13-month construction schedule provided by City staff.

The Project will construct a new potable water blending facility with pumping and disinfection facilities to enable the use of groundwater from the Temescal Groundwater Basin. The 2.0-million-gallon Mangular Tank, located at the east end of Mangular Park on Utilities Department property, is one of two 905 Zone domestic water storage and blending facilities serving the City of Corona.

The blending facility receives water with elevated nitrate concentrations from City-owned wells 11, 12, 14, 15, and 27 via a well collector line at flow rates ranging from 1,000 GPM to 3,800 GPM. The blending facility receives lower nitrate treated blend water via a 1060 Zone transmission main (Crosstown Feeder) within Ontario Avenue, providing the flexibility of using blend water from either the Lester Water Treatment Plant or the Sierra del Oro Water Treatment Plant. The well water will be blended with the 1060 Zone blend water to achieve targeted nitrate concentrations in the blended water prior to discharge to the Mangular Tank. The Project location and limits are shown on Exhibit "A."

**ANALYSIS:**

Construction commenced on October 6, 2020, with an original completion date of November 8, 2021, based on the City's estimated schedule. The schedule prepared by the general contractor determined that construction required an additional 103 working days, extending the completion date to April 11, 2022. The City issued a no-cost change order to the general contractor extending the contract period the requested 103 working days to April 11, 2021. The time extension resulted from the following.

- 1. The project is located on a small site with existing water facilities that must remain in operation during most of the construction schedule. Significant portions of the construction work must be performed in a linear sequence rather than concurrently to maintain active water facilities in service.
- 2. The existing blending and pump station facilities will need to be taken out of service and

demolished over a several month period. Scheduling of this work in winter and spring 2021/22 is most advantageous for the operation of the potable water blending and distribution system.

3. Disruptions to equipment and materials manufacturing and delivery lead times due to COVID-19 impacts have impacted the overall construction schedule.
4. Utilities Department staff requested modifications to the design to use variable frequency drive (VFD) pump motors in lieu of fixed speed motors to provide greater operational flexibility. VFD motors will allow water operations staff to match water inflows and outflows and maintain consistent water levels in the adjacent Mangular Tank and control flows to Zones 1060 and 1220 to meet the operational needs for each distribution zone. Power and controls design modifications were made in a collaborative effort between City staff, the general and electrical contractors, and the electrical and instrumentation inspectors. Additional electrical conduits, wiring, equipment, and cabinets were purchased and installed to provide the desired VFD controls.

Extension of the construction schedule requires construction management and inspection services for five additional months beyond the original 13-month construction schedule plus one month of reduced construction management activity during project closeout. The design modifications to incorporate VFD motors requires additional effort by the electrical and instrumentation inspection firm to review the proposed electrical design and controls logic changes, review additional submittals, and provide additional field inspection.

The requested additional construction management budget totals \$120,000. Public outreach and soils/materials testing services can be managed within the existing budget and require no additional funding due to the extended schedule.

#### **FINANCIAL IMPACT:**

The approved Project budget of \$13,650,000 includes sufficient funding for the proposed construction management contract amendment.

#### **ENVIRONMENTAL ANALYSIS:**

The Program Environmental Impact Report Addendum for the Mangular Blending Facility Project was adopted on November 6, 2019. Therefore, no further environmental analysis is required.

**PREPARED BY:** VERNON R. WEISMAN, P.E. DISTRICT ENGINEER

**REVIEWED BY:** SAVAT KHAMPHOU, PUBLIC WORKS DIRECTOR

#### **Attachments:**

1. Exhibit 1 - Location Map
2. Exhibit 2 - First Amendment to the Professional Services Agreement