

STAFF REPORT 6/12/2024

To:Honorable Mayor and City Council MembersFROM:Cástulo R. Estrada, Utilities ManagerSUBJECT:Proposal to Prepare Technical Specifications and Bid Package for the
Rehabilitation of Well #16; CIP W-54, for a Total Cost of \$68,982.00

STAFF RECOMMENDATION:

Authorize the Task Order Proposal to Prepare Technical Specifications and Bid Package for the Rehabilitation of Well #16; CIP W-54, for a Total Cost of \$68,982.00.

BACKGROUND:

The City of Coachella and its Coachella Water Authority (CWA) is responsible for the water service to its residents and customers within its service boundary. The water division of the Utilities Department serves a population of approximately 45,000. Existing land uses consists primarily of single and multi-family homes, but also includes commercial and industrial zones. Full buildout of the City's sphere of influence (SOI), for a total service area of approximately 53 square miles is not anticipated until sometime after 2050.

CWA's current water supply source is groundwater from the Indio Sub-basin produced from CWA owned and operated wells. There are approximately 9,100 (meter) connections to the system.

CWA's existing water system consists of different pressure zones, groundwater wells, storage reservoirs, booster pumping stations, and distribution facilities. The current water system is divided into two pressure zones, the Low Zone and the 150 Zone. The Low Zone Area is generally south of 48th Avenue, bounded by Van Buren on the west, the Coachella Valley Storm Channel on the east, and 54th Avenue on the south. The Low Zone provides water service to the majority of the City and as the City continues to grow, the Low Zone will extend further east. The 150 Zone service area is generally north of 48th Avenue and supplies primarily commercial and light industrial users along the Interstate 10 freeway corridor.

CWA has one principal source of water supply, local groundwater pumped from the CWA-owned wells. There are currently six wells within the City's distribution system. The total pumping capacity of active wells is approximately 11,759 gallons per minute (gpm) or 16.5 million gallons per day (MGD).

There are three storage reservoirs within the City, the 1.5 million gallon (MG) Dillion Road Reservoir, the 3.6 MG Mecca Reservoir, and the 5.4 MG Well 18 Reservoir. CWA has a total reservoir storage capacity of approximately 10.5 MG; of which, approximately 1.5 MG lies within the 150 Zone.

CWA operates two booster pumping stations, the Mecca Reservoir booster pump station (Well 12 Booster) and the Well 18 Reservoir booster pump station (Well 18 Booster). The Well 12 Booster supplies the Low Zone and takes suction from the Mecca Reservoir, and the Well 18 Booster supplies both the 150 Zone and Low Zone, and takes suction from the Well 18 Reservoir.

CWA's distribution system network consists of approximately 120 miles of pipeline, which range from 4- inches to 36-inches in diameter. It is estimated that a majority of pipes in the City's water distribution system network were installed between the year 1940 and year 1990. The older pipes reside in the southerly section of the lower zone, and the newer pipes are in the northerly section. Asbestos cement (AC) is the most common pipeline material in the City, according to operations staff; with the remaining pipelines being either polyvinyl chloride (PVC) or ductile iron (DI) and lined steel.

DISCUSSION/ANALYSIS:

Well # 16 was completed in January 1991, when it was first completed it had a capacity of approximately 2,650 gallons per minute. The well has a total depth of 730 ft. Since then the capacity has dropped to approximately 1,848 gallons per minute. Recently the well's performance has been concerning. On September 2023 staff worked with South West Pump and Drilling to perform a down hole video inspection of the well casing.

The video inspection confirmed severe bacteriological growth on the well casing due to the age of the well. Staff recommends the rehabilitation of the well to remove the bacterial growth, scale and debris to unclog the water pathways through the gravel filter pack into the well. The rehabilitation of the well will help improve the efficiency and help reduce excessive velocities in areas that are currently clogged.

FISCAL IMPACT:

This project will be added to the Fiscal Year 2024-25 Water Capital Improvement Budget, W-54 in the amount of \$300,000.00. It is anticipated that \$300,000.00 will cover this design cost and construction.

ATTACHMENTS:

- 1. Dudek Proposal
- 2. Video Inspection Report of Well #16
- 3. Dudek On-call Services PSA