



Legislation Text

File #: 15-292, **Version:** 1

Report Prepared by: Joseph D. Angulo, Environmental Project Manager, Engineering

SUBJECT: Award Bid to Evoqua Water Technologies for Furnishing Granular Activated Carbon for the PCE Wellhead Treatment System at Well 3C, Project No. 115048

REPORT IN BRIEF

Consider awarding a contract in the amount of \$200,000 to Evoqua Water Technologies to furnish granular activated carbon for the PCE Wellhead Treatment System at Well 3C.

RECOMMENDATION

City Council - Adopt a motion:

- A. Awarding the bid for the Granular Activated Carbon For Water Treatment Project No. 115048, to Evoqua Water Technologies, in the amount of \$200,000; and,
- B. Authorizing contract change orders as necessary to replenish the carbon at the costs/terms specified in this three-year option contract; and,
- C. Authorizing the City Manager to execute the necessary documents.

ALTERNATIVES

- 1. Approve the contract with Evoqua Water Technologies, as recommended by staff; or,
- 2. Approve, subject to modifications as conditioned by City Council; or,
- 3. Refer to staff for reconsideration of specific items; or,
- 4. Deny.

AUTHORITY

Charter of the City of Merced, Section 200 et seq.

Municipal Code Chapter 3.04, Article IV - Public Works Contracts. Every project involving an expenditure of more than sixty three thousand and fifty four dollars (\$63,054) for the construction or improvements of public buildings, works, streets, drains, sewers, utilities, park, and playgrounds shall be let by contract to the lowest responsive and responsible bidder after notice by publication in the official newspaper by one or more insertions, the first of which shall be at least ten days before the time for opening bids.

CITY COUNCIL PRIORITIES

As provided for in the 2015-16 Adopted Budget.

DISCUSSION

PCE in Groundwater:

Tetrachloroethylene, also known as Perchloroethylene (PCE), is a chlorinated solvent that persists when discharged to the environment. Historical sources of PCE discharges may include dry cleaners, auto repair shops, and other industries/facilities that use or store cleaning solvents.

Former City Wells 3A and 3B were installed on a parcel in the central portion of the City in the 1950s. These wells were impacted by PCE releases to the groundwater aquifer beneath Merced, and were removed from service. Well 3C was installed on the same parcel in 1987 to replace the shallower Wells 3A and 3B. In the past decade, Well 3C has intermittently contained detectable concentrations of PCE ranging from 0.5 to 2.2 ug/l (micrograms per liter or parts-per-billion).

Staff explored various options to address the Well 3C situation. The options included replacing it with a deeper well at the same location. This was the previous method utilized as Well 3C replaced Wells 3A and 3B. However, the PCE ultimately impacted the replacement Well 3C. The option of treating the groundwater in place near the well is impractical due to the greater than 500 foot depth of the PCE. Destroying the well and replacing it with a new well in a different area of the City is another option. This option was dismissed as it negates the value of the water resource itself in the vicinity of Well 3C. This option would also require building new infrastructure, including a pump station with associated plumbing, and does not offer the sustainability benefits of utilizing the existing infrastructure at Well 3C.

It is in the best interests of the City to provide wellhead treatment for the PCE at Well 3C given the options available. Many San Joaquin Valley cities have installed wellhead treatment systems to address their groundwater contaminant problems.

Wellhead treatment is also an anticipated treatment method in the City's settlement in the dry cleaners case. A claim has been filed on the insurance policy resulting from the dry cleaners settlement to cover eligible costs for wellhead treatment. This will assist in reducing the total costs for this project as this contract is expected to be 100% reimbursable to the City.

System Design:

AECOM Technical Services, Inc. (AECOM) developed the plans and specifications for a PCE treatment system consisting of four (4) above ground carbon vessels with each containing twenty-thousand pounds (20,000 lbs.) of granular activated carbon (GAC). Water will be routed from Well 3C through the carbon vessels and into the City's water supply system to provide quality drinking water to Merced residents.

Treatment System Bidding:

The procurement of the system has been separated into three phases: 1) carbon vessel fabrication and delivery; 2) chemical building demolition and relocation, plumbing, electrical, and communications equipment construction; and 3) carbon delivery, loading and replenishment.

By separating the carbon vessel and carbon procurements the City will avoid paying the typical contractor 15% mark up for these items. The City can also control quality and achieve cost savings

by dealing directly with the carbon suppliers, rather than through the contractor. The contract under consideration is for the phase 3 granular activated carbon delivery, loading, and replenishment.

The Carbon Contract:

When carbon is used as a water filtering media for PCE it eventually becomes saturated and the carbon needs to be replenished. The vendor will then mobilize trucks to the site to off-load the spent carbon, and refill the vessels with new carbon. The spent carbon can be managed in two ways- 1) destruction or 2) reactivation for re-use at the Well 3C site. The advantages of using reactivated carbon are: lower costs, quality control in that contaminants from other sites will not be mingled with City carbon, and sustainability of natural resources (recycling).

The bid package was developed in consideration of the above process to include costs for 1) the initial carbon fill, 2) the initial replenishment, and 3) ongoing replenishment returning the City's reactivated carbon to the site. Vendors were required to provide three quotes on a price per pound (\$/lbs.) basis for each of these scenarios.

The project was advertised for bidding and the bids were opened on November 19, 2015, with the following results:

1. Evoqua Water Technologies (Alpharetta, GA) \$ 268,000.00
2. Prominent System, Inc. (City of Industry, CA) \$ 163,200.00
(Non-responsive: the contractor did not submit an amount for Bid Item No. 2- Remove, Reactivate/Destroy Spent GAC, and then Furnish and Install Reactivated GAC)

Note to above: Prominent System, Inc. filed a protest regarding the bidding. The City responded to Prominent System, Inc. by rejecting their protest. A copy of the protest and the City's response are attached.

The engineer's estimate for the carbon was \$332,000.

The listed contract amount of \$200,000 is for the initial carbon loading of the four vessels (total 80,000 lbs. @ \$1.20/lb. = \$96,000), and the first change out (total 80,000 lbs. @ \$1.30/lb. = \$104,000). The rate at which the carbon will be depleted is dependent on groundwater chemistry, pumping rates and other factors. AECOM estimates that the first change out will be required within one year of system startup. Subsequent carbon change outs will be funded through the annual budget process and contract change orders at the costs/terms specified in this three-year option contract.

Note: staff is specifically requesting authorization to exceed the 10% contract change order limitation due to the cost of the future carbon replenishments (80,000 lbs. @ \$0.85 = \$68,000).

Past Actions:

On April 15, 2013, the City Council awarded a professional services agreement with AECOM Technical Services, Inc., for wellhead treatment engineering design services at Well 3C.

On July 6, 2015, the City Council awarded a contract to Carbon Activated Corporation of Compton, California, for the phase 1 fabrication and delivery of four (4) above ground carbon vessels with each

having a capacity of twenty-thousand pounds (20,000 lbs.) of granular carbon absorbent.

On November 2, 2015, the City Council awarded a contract to Carbon Activated Corporation of Compton, California, for the phase 2 on-site construction: chemical building demolition and relocation, plumbing, electrical, and communications equipment construction.

IMPACT ON CITY RESOURCES

This project was established as a Capital Improvement Project and Water System Enterprise Fund account 557-1106-637-65.00-115048 contains sufficient funding to complete the project.

ATTACHMENTS

1. Bid Results
2. Contract
3. Location Map
4. Bid Protest Letter
5. Bid Protest Response