Legislation Details (With Text)

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Title:	Award contract for Potable Water and Wastewater Treatment Chemicals - Multi-Year Contract and change order for polymer for Fiscal Year 2021.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	1. Staff Report, 2. Exhibit 1 - NIB 21-082CA, 3. Exhibit 2 - NIB 21-082CA Addenda, 4. Exhibit 3 - NIB 21-082CA Bid Summary				

Date	Ver.	Action By	Action	Result
7/7/2021	1	City Council	approved	

REQUEST FOR CITY COUNCIL AND CORONA UTILITY AUTHORITY ACTION

DATE: 07/07/2021

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

FROM: Department of Water and Power

SUBJECT:
Award contract for Potable Water and Wastewater Treatment Chemicals - Multi-Year Contract and change order for polymer for Fiscal Year 2021.

EXECUTIVE SUMMARY:

The City issued Notice Inviting Bids 21-082CA for Potable Water and Wastewater Treatment Chemicals following formal bidding procedures and received 24 bids from fifteen 15 bidders. Bidders had the option to bid on any quantity of chemicals listed in the bid document. Staff recommends the City Council award Notice Inviting Bids 21-082CA to the vendors listed in Table 1 for chemicals used for potable water and wastewater treatment. The total recommended award amount is $3,090,200. The recommended action also includes an increase for polymer for wastewater treatment for Fiscal Year 2021.

RECOMMENDED ACTION:

That the:

a. City Council authorize a change order in the amount of $40,000 to Aqua Ben Corporation for required polymer for wastewater treatment for Fiscal Year 2021.

b. City Council award Notice Inviting Bids 21-082CA for Potable Water and Wastewater Treatment Chemicals to the following vendors for an initial contract period ending June 30, 2022, with four one-year renewal periods
   i. Olin Chlor Alkali Products of Tracy, CA, the lowest responsive, responsible bidder, for the chemical sodium hypochlorite 12.5% for $1,750,000,
   ii. Thatcher Company of Nevada, Inc. of Salt Lake City, UT, the lowest responsive, responsible bidder, for the chemical aluminum sulfate 43.65% (10% acidified) and 48.5% in the amount of $83,000,
   iii. Airgas Specialty Products, Inc. of Lawrenceville, GA, the lowest responsive, responsible bidder, for the chemical ammonium hydroxide 19% for $42,000,
   iv. King Lee Technologies of San Diego, CA, the lowest responsive, responsible bidder, for the chemical corrosion and scale inhibitor (pre-treatment) for $150,000,
   v. Polydyne, Inc. of Riceboro, GA, the lowest responsive, responsible bidder for the chemical cationic polymer (water treatment) for $125,000,
   vi. Aqua Ben Corporation of Orange, CA, the lowest responsive, responsible bidder for the chemicals anionic polymer (water treatment), anionic polymer (wastewater treatment), cationic polymer (gravity belt thickeners - wastewater treatment), and cationic polymer (centrifuge - wastewater treatment) for $590,200,
   vii. JCI Jones Chemicals, Inc. of Torrance, CA, the lowest responsive, responsible bidder, for the chemical sodium hydroxide 25% for $40,000,
   viii. Pacific Star Chemical dba Northstar Chemical of Sherwood, OR, the lowest responsive, responsible bidder, for the chemical sulfuric acid 93% for $165,000,
   ix. California Water Technologies, LLC of Santa Fe Springs, CA, the lowest responsive, responsible bidder, for the chemical ferric chloride 15%-40% for $100,000,
   x. Univar Solutions USA, Inc. of Kent, WA, the lowest responsive, responsible bidder, for the chemical sodium bisulfite 25% for $45,000, and waive any minor irregularities in the bidding document as submitted by said bidder.

c. City Council authorize the City Manager or his designee to negotiate and execute non-substantive extensions, change orders, and amendments up to 10% per purchase order as authorized in Corona Municipal Code Section 3.08.080(I).

d. City Council authorize the Purchasing Manager to issue annual purchase orders for the initial contract period ending June 30, 2022, with four one-year renewal periods to:
   i. Olin Chlor Alkali Products for $1,750,000,
   ii. Thatcher Company of Nevada, Inc. for $83,000,
   iii. Airgas Specialty Products, Inc. for $42,000,
   iv. King Lee Technologies for $150,000,
   v. Polydyne, Inc. for $125,000,
   vi. Aqua Ben Corporation in the amount of $590,200,
   vii. JCI Jones Chemicals, Inc. for $40,000,

viii. Pacific Star Chemical DBA Northstar Chemical for $165,000.
ix. California Water Technologies, LLC for $100,000.
x. Univar Solutions USA, Inc. for $45,000.

e. Corona Utility Authority review, ratify, and to the extent necessary, direct the City Council to take the above actions.

BACKGROUND & HISTORY:
The Department of Water and Power operates four 4 water treatment facilities and three 3 water reclamation facilities serving the City of Corona. The Department of Water and Power uses a variety of chemicals at these facilities to treat potable water and wastewater to ensure compliance with state and federal laws and regulations.

ANALYSIS:
On June 8, 2021, the Purchasing Division issued Notice Inviting Bids (NIB) 21-082CA for Potable Water and Water Reclamation Treatment Chemicals. NIB 21-082CA was advertised pursuant to Corona Municipal Code (CMC) 3.08.110 Non-public projects - formal bidding procedure. The bid was advertised in the Sentinel Weekly on June 16, 2021, and published on PlanetBids on June 8, 2021. The bid close date was June 28, 2021. The City requested bids for 13 chemicals used in water and wastewater treatment. Bidders had the option to bid on any or all of the chemicals listed in the bid document. Forty-five vendors were notified of the bid opportunity. Thirty-four vendors, three planroom/bid service provides, and two "nonbidders" downloaded the bid documents. The City received 24 bids from fifteen bidders by the submission date of June 28, 2021. Staff recommends award to the following bidders:

Table 1: Recommended Award

Chemical	Bidders	Vendor	Price	U/M	Award Amount
Sodium Hypochlorite	2	Olin Chlor Alkali Products	$0.825	per gallon	$1,750,000
Aluminum Sulfate 43.65% (10% acidified)	1	Thatcher Company of Nevada, Inc.	$1.26	per gallon	$61,000
Aluminum Sulfate 48.5%	2	Thatcher Company of Nevada, Inc.	$1.20	per gallon	$22,000
Ammonium Hydroxide	1	Airgas Specialty Products, Inc.	$0.77	per gallon	$42,000
Cationic (GBT)	2	Aqua Ben Corporation	$1.27	per lb	$178,000
Corrosion/Scale Inhibitor	3	King Lee Technologies	$6.51	per gallon	$150,000
Cationic (Centrifuge)	2	Aqua Ben Corporation	$1.33	per lb	$370,000
Anionic (WRF1A Primary)	2	Aqua Ben Corporation	$0.95	per lb	$40,000
Cationic	1	Polydyne, Inc.	$0.60	per lb	$125,000
Anionic	1	Aqua Ben Corporation	$1.34	per lb	$2,200
Sodium Hydroxide	2	JCI Jones Chemicals, Inc.	$1.10	per gallon	$40,000
Sulfuric Acid	2	Pacific Star Chemical dba Northstar Chemical	$1.64	per gallon	$165,000

Ferric Chloride	1*	California Water Technologies, LLC	$1.61	per gallon	$100,000
Sodium Bisulfite	2	Univar Solutions, Inc	$0.98	per gallon	$45,000
Grand Total					**$3,090,200**

**Two total bids received, one bidder deemed nonresponsive.*

Sodium Hypochlorite 12.5%

Sodium hypochlorite in 12.5% concentration is used in both water and wastewater treatment.

Potable Water Treatment - Sodium hypochlorite is used in water treatment for disinfection and to achieve chlorine contact time. At the Lester and Sierra Del OroSDO Treatment Plants, sodium hypochlorite is used for pre- and post-treatment disinfection. The influent source for both treatment plants is Colorado River water which is full-body contact. This requires pre-chlorination before the treatment process for the health of the facility and to eliminate pathogens such as bacteria, viruses, parasites, giardia, and cryptosporidium, among others. Sodium hypochlorite is also used in post-treatment disinfection to achieve contact time through a chlorine contact basin (CCB). The chlorine contact time requirements are based on the City's Water Supply Permit as issued by the State Water Resources Control Board. At the Glen Ivy and Well 11 sites, sodium hypochlorite is used to treat groundwater before the water is blended into the distribution system. At the Temescal Desalter facility, sodium hypochlorite is used to achieve the required disinfection to ensure regulatory compliance. The potable water treatment process uses approximately 256,045 gallons of sodium hypochlorite each year.

Water Reclamation Treatment - Sodium Hypochlorite is used in wastewater treatment to meet all of the facilities' compliance points throughout DWP's water reclamation treatment process. Sodium hypochlorite is used to meet contact time requirements, achieve system residual, and for disinfecting pathogens. Sodium Hypochlorite is also used in the wastewater treatment process to chemically oxidize ammonia. The water reclamation treatment process uses approximately 1,661,378 gallons of sodium hypochlorite each year.

The City received two bids for sodium hypochlorite:

Vendor	City	Bid Amount
Olin Chlor Alkali Products	Tracy, CA	$0.825/gal
JCI Jones Chemicals, Inc.	Torrance, CA	$0.97/gal

Olin Chlor Alkali Products is the apparent low bidder for sodium hypochlorite 12.5% for potable water and wastewater treatment processes, and DWP requests an annual purchase order for $1,750,000.

Aluminum Sulfate 43.65% (10% Acidified) and 48.5%

The water treatment process uses aluminum sulfate to cause suspended impurities in the water to coagulate into larger particles that can be easily filtered out. This chemical allows the filters to be more efficient. Aluminum Sulfate 43.65% (10% acidified) is used at Lester Water Treatment Plant.

Aluminum Sulfate 48.5% is used at Sierra Del Oro Water Treatment Plant.

The City received one bid for Aluminum Sulfate 43.65% (10% acidified), and two bids for Aluminum Sulfate 48.5%.

Aluminum Sulfate 43.65% (10% Acidified)

Vendor	City	Chemical	Bid Amount
Thatcher Company of Nevada, Inc.	Salt Lake City, UT	Alum. Sulfate 43.65% (10% Acidified)	$1.26/gal

Aluminum Sulfate 48.5%

Vendor	City	Chemical	Bid Amount
Thatcher Company of Nevada, Inc	Salt Lake City, UT	Alum. Sulfate 48.5%	$1.20/gal
Pacific Star Chemical/ DBA Northstar	Sherwood, OR	Alum. Sulfate 48.5%	$1.395/gal

Thatcher Company of Nevada, Inc. is the apparent low bidder for both Aluminum Sulfate 43.65% (10% Acidified) and 48.5% for the potable water treatment process, and DWP requests annual purchase orders for $61,000 for Aluminum Sulfate 43.65% (10% Acidified) and $22,000 for Aluminum Sulfate 48.5%.

Ammonium Hydroxide 19%

Ammonium hydroxide is used for disinfection in the water treatment process. Ammonium hydroxide reacts with sodium hypochlorite to yield chloramines. Chloramines are a stable sanitizing compound that provide long-lasting disinfection throughout the city's distribution system.

The City received one bid for ammonium hydroxide.

Vendor	City	Bid Amount
Airgas Specialty Products, Inc.	Lawrenceville, GA	$0.7725/gal

Airgas Specialty Products, Inc. is the apparent low bidder for Ammonium Hydroxide 19% for the potable water treatment process, and DWP requests an annual purchase order for $42,000.

Corrosion and Scale Inhibitor

The Water Operations division uses corrosion and scale inhibitor in the water treatment process at the Temescal Desalter. These chemicals keep minerals in suspension, preventing cohesion to pumps and water pipes. This reduces calcium build-up and extends the life of the water infrastructure. Without corrosion and scale inhibitor, our pumps and infrastructure would be damaged due to the premature precipitation of minerals.

The City received three bids for corrosion and scale inhibitor.

Vendor	City	Bid Amount
King Lee Technologies	San Diego, CA	$6.51/gal
Amaya Solutions, Inc. dba American Water Chemicals	Plant City, FL	$8.49/gal
Avista Technologies	San Marcos, CA	$8.74/gal

King Lee Technologies is the apparent low bidder for Corrosion and Scale Inhibitor for the potable water treatment process, and DWP requests an annual purchase order for $150,000.

Cationic Polymer and Anionic Polymer (Water Reclamation)

Cationic and anionic polymers are crucial components of the flocculation process in wastewater treatment. Cationic polymers are positively charged, while anionic polymers are negatively charged. These molecules attract particles of an opposite charge and allow them to form large clusters or "flocs." As flocs are generated, they precipitate much more readily out of solution, which is the key to clarification by settling. The more that solids are combined, the easier they are to remove.

The water reclamation process uses three polymers throughout the treatment process. One cationic polymer is used for the gravity belt thickeners, one cationic polymer is used for the centrifuge, and one anionic polymer is used for WRF1A primary treatment.

Cationic Polymer (Gravity Belt Thickener)

Vendor	City	Chemical	Dose Rate	Bid Amount
Aqua Ben Corporation	Orange, CA	Cationic Poly (GBT)	0.42 GPH	$1.27/LB
Solenis, LLC	Wilmington, DE	Cationic Poly (GBT & Centrifuge)	3.78 GPH	$1.46/LB

Cationic Polymer (Centrifuge)

Vendor	City	Chemical	Dose Rate	Bid Amount
Aqua Ben Corporation	Orange, CA	Cationic Poly (Centrifuge)	1.2 GPH	$1.33/LB
Solenis, LLC	Wilmington, DE	Cationic Poly (GBT & Centrifuge)	3.78 GPH	$1.46/LB

Anionic Polymer (WRF1A Primary Treatment)

Vendor	City	Chemical	Dose Rate	Bid Amount
Aqua Ben Corporation	Orange, CA	Anionic Polymer	0.5 GPH	$0.95/LB
Solenis, LLC	Wilmington, DE	Anionic Polymer	3.78 GPH	$1.17/LB

Aqua Ben Corporation is the apparent low bidder for cationic polymer (gravity belt thickeners), cationic polymer (centrifuge), and anionic polymer (WRF1A Primary Treatment). DWP requests purchase orders for $178,000 for cationic polymers (gravity belt thickeners), $370,000 for cationic polymer (centrifuge) and $40,000 for anionic polymer (WRF1 Primary Treatment).

Cationic Polymer and Anionic Polymer (Potable Water)

The water treatment process uses cationic polymer as a secondary binding agent for the coagulation/flocculation process. The water treatment process uses anionic polymers for settling solids within the gravity thickeners.

The City received one bid for cationic polymer and one bid for anionic polymer.

Vendor	City	Chemical	Dose Rate	Bid Amount
Polydyne, Inc.	Riceboro, GA	Cationic Polymer	0.3 mg/L	$0.60/LB

Vendor	City	Chemical	Dose Rate	Bid Amount
Aqua Ben Corporation	Orange, CA	Anionic Polymer	0.5 mg/L	$1.34/LB

Polydyne, Inc. is the apparent low bidder for cationic polymer for the potable water treatment process, and DWP requests a purchase order for $125,000.

Aqua Ben Corporation is the apparent low bidder for anionic polymer. DWP requests a purchase order for $2,200.

Sodium Hydroxide 25%

Sodium hydroxide is used in the water treatment process to regulate water acidity and to assist in the removal of heavy metals in drinking water. Without the use of sodium hydroxide, the pH of the Desalter effluent would be too low, resulting in infrastructure damage, water quality issues, potential damage to homeowners' plumbing, and leaching of copper within homes.

The City received two bids for sodium hydroxide.

Vendor	City	Bid Amount
JCI Jones Chemicals, Inc.	Torrance, CA	$1.10/gal
Pacific Star Chemical/ DBA Northstar Chemicals	Sherwood, OR	$1.24/gal

JCI Jones Chemicals, Inc. is the apparent low bidder for Sodium Hydroxide 25% for the potable water treatment process, and DWP requests a purchase order for $40,000.

Sulfuric Acid 93%

Sulfuric Acid is used exclusively at the Temescal Desalter. The Temescal Desalter utilizes reverse osmosis technology to treat groundwater. Sulfuric acid lowers the pH of the influent water from approximately 7.2 to 6.4. Sulfuric acid is a sequestration agent that helps keep minerals in

suspension, thereby optimizing the reverse osmosis process by keeping minerals from precipitating onto the membranes. These minerals are most commonly bicarbonate, calcium carbonate, and silica. Minerals remain in suspension and flow to the waste stream, where they are rejected into the Inland Empire Brine Line (IEBL). Without sulfuric acid, the Temescal Desalter would experience much shorter run times between membrane cleanings.

The City received two bids for sulfuric acid.

Vendor	City	Bid Amount
Pacific Star Chemical dba Northstar Chemical	Sherwood, OR	$1.64/gal
Univar Solutions, Inc.	Kent, WA	$2.142/gal

Pacific Star Chemical dba Northstar Chemical is the apparent low bidder for Sulfuric Acid 93% for the potable water treatment process, and DWP requests a purchase order for $165,000.

Ferric Chloride 15%-40%

Ferric chloride is used to reduce hydrogen sulfide in the digesters at the City's water reclamation facilities and helps with clarification in primary sedimentation. High levels of hydrogen sulfide in the digester could result in violations from the South Coast Air Quality Management District.

Vendor	City	Bid Amount
California Water Technologies, LLC	Santa Fe Springs, CA	$1.61/gal
Kemira	Lawrence, KS	**

**Kemira was deemed nonresponsive as they had a serious OSHA violation in December 2019.

California Water Technologies, LLC is the apparent low bidder for Ferric Chloride 15%-40% for the water reclamation treatment process. DWP requests a purchase order for $100,000 to allow for any changes in the City's treatment needs.

Sodium Bisulfite 25%

During the wastewater treatment process, the tertiary effluent is treated with sodium hypochlorite for disinfection. Some of this water goes into the reclaimed water system, and some of the water is discharged to the Santa Ana River. When the water is discharged to the river, DWP is required to reduce the amount of residual chlorine in the water to ensure compliance with the United States Environmental Protection Agency regulations. Sodium bisulfite is used to reduce the amount of residual chlorine in the water.

The City received two bids for sodium bisulfite.

Vendor	City	Bid Amount
Univar Solutions, Inc.	Kent, WA	$0.98/gal

JCI Jones Chemicals, Inc.	Torrance, CA	$1.05/gal

Univar Solutions, Inc. is the apparent low bidder for Sodium Bisulfite 25% for the water reclamation treatment process, and DWP requests a purchase order for $45,000.

Cationic Polymer (Centrifuge) Wastewater Treatment Fiscal Year 2021

DWP requests a change order with Aqua Ben for Fiscal Year 2021 for cationic polymer for the centrifuge for wastewater treatment for $40,000. DWP uses cationic polymer in the centrifuge to assist with the dewatering process. Due to a 3-week delay in bulk shipments, staff had to seek alternative solutions by ordering totes of polymer that were available locally to ensure uninterrupted treatment. The bulk order of polymer was finally delivered and will be used. However, the bulk order and the totes exceeded the purchase order authorization for Fiscal Year 2021 with Aqua Ben.

FINANCIAL IMPACT:
Funding for the recommended action is available in the Department of Water and Power's Fiscal Year 2021 and Fiscal Year 2022 operating budgets.

ENVIRONMENTAL ANALYSIS:
This action is exempt pursuant to Section 15061(b)(3) of the Guidelines for the California Environmental Quality Act (CEQA), which states that a project is exempt from CEQA if the activity is covered by the commonsense exemption that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. This action involves the purchase of required chemicals for water and wastewater treatment, and there is no possibility that the recommended actions will have a significant effect on the environment. Therefore, no environmental analysis is required.

PREPARED BY: KRISTIAN ALFELOR, DWP OPERATIONS MANAGER

REVIEWED BY: TOM MOODY, GENERAL MANAGER

Attachments:
1. Exhibit 1 - NIB 21-082CA
2. Exhibit 2 - NIB 21-082CA Addenda
3. Exhibit 3 - NIB 21-082CA Bid Summary