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SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FROM: Waste Management Department

SUBMITTAL DATE: July 18, 2013

SUBJECT: Approve the Purchase of One Caterpillar D8T 4i Waste Handling Tractor for the Waste Management Department via the Competitive Bidding Process, With Only One Responsive/Responsible Bid Received.

RECOMMENDED MOTION: That the Board of Supervisors:

Receives and files notice of the proposed purchase of one (1) Caterpillar D8T 4i Waste Handling Tractor in the amount of $754,977.89 in accordance with Ordinance No. 459.4. Said purchase shall be pursuant to the County Purchasing Agent approving the purchase on behalf of the County.

BACKGROUND: On May 9, 2013, the County Purchasing Department issued a Request For Quotation on behalf of the Waste Management Department for one (1) Caterpillar D8T 4i Waste Handling Tractor, or equal. The RFQ# WMARC - 222 was posted on PublicPurchase.com, the County Purchasing Website and e-mailed to several local Riverside County Equipment Dealers. Upon RFQ closing on May 23, 2013, three bids were received. Two of the three bids were disqualified as non-responsive for failing to meet the specifications listed in the RFQ. Consequently, only one responsive bid was received, from Johnson Machinery Company of Riverside, CA. Other Southern California area Caterpillar dealers including Quinn Company and Hawthorne CAT did not submit quotes per the regional franchise Caterpillar agreements that discourage competition among regional Caterpillar franchisees. The disqualified bidders stated that they could not meet the pending U.S. EPA Tier-IV engine emission requirements and/or the high drive planetary type final drives specified in the bid. (continued)

Hans Kernkamp, General Manager-Chief Engineer

FINANCIAL DATA				
	Current F.Y. Total Cost:	$ 754,977.89	In Current Year Budget:	Yes
	Current F.Y. Net County Cost:	$NA	Budget Adjustment:	No
	Annual Net County Cost:	$NA	For Fiscal Year:	FY13/14

SOURCE OF FUNDS: Waste Management Department Enterprise Funds

Positions To Be Deleted Per A-30 ☐

Requires 4/5 Vote ☒

C.E.O. RECOMMENDATION: APPROVE

BY: Alex Gann

Alex Gann

County Executive Office Signature

Robert Howd/Shell, Director
PURCHASING & FLEET SERVICES

Departmental Concurrence

Policy ☒ Consent ☐

Policy ☒ Consent ☐

Dep't Recomm.:

Per Exec. Ofc.:

2013 JUL 23 AM 11:55

Prev. Agn. Ref.: 4/30/13 (12.1C)

District: All

Agenda Number: 12-2C

Due to California Air Resources Board (CARB) Off-Road Diesel Emissions Regulations it is prudent to purchase the highest tier (lowest emission) engine available when purchasing new equipment to meet or exceed CARB regulations in order to retain compliance credits and avoid penalties. High drive planetary type final drives are essential to efficient operation in the harsh landfill environments in which this equipment will be used. The Caterpillar D8T 4i Waste Handling Tractor is the only equipment which meets both the U.S. EPA Tier-IV emission regulations and high drive design requirements.

To comply with In-Use Off-Road Diesel regulations, the Department must replace many of the units within its landfill fleet before 2021. The Department plans to phase the required replacement of equipment fleet over several years. Current year replacement strategies include one (1) D8T dozer. The first unit proposed for replacement is a 1998 Caterpillar D8R dozer that is in need of repairs estimated to exceed $200,000.00.

There are three (3) manufacturers of landfill crawler-dozers in the 80,000 pound weight class: Caterpillar model D8T, Komatsu D155AX-15SL, and the John Deere 1050J-WH. The Department's existing waste handling dozers are a combination of Caterpillar model D8R and D9R models. After researching the performance, features, and suitability of each machine, Department staff is recommending the standardizing of landfill dozers to the Caterpillar brand, for the following reasons:

Durability: Department staff has experienced the durability of the D8R and D9R series crawler-dozer first hand. The Department's existing D8R series has accumulated more than 15,000 operating hours and the D9R series accumulating more than 20,000 operating hours. Much of this durability can be attributed to the D8 and D9 series tractors' outstanding design, features of which are described in the following paragraphs:

Drivetrain: This is the most compelling advantage that the Caterpillar machine offers. Caterpillar utilizes an elevated sprocket final drive arrangement "High Drive" that is a proprietary design characteristic of Caterpillar. The final drive is elevated approximately five feet above the bottom of the tracks. The Komatsu and John Deere designs use a conventional final drive arrangement, in which the final drive contacts the bottom of the tracks directly. The elevated sprocket final drive design of Caterpillar is preferred in landfill operations, because its higher location means that it is less likely to incur damage from trash and debris than the conventional final drive arrangement, which is in constant contact with trash and debris. Other benefits of the elevated design include the ability to more easily view debris build up and access to clean tracks, reducing the potential damage that may result from unseen/untreated debris build up in tracks. It is estimated that man hours spent cleaning tracks on an elevated sprocket final drive design is half that which is needed to clean tracks on a low drive design machine. Over the daily operation of a machine this has the potential to equate to one man hour per day. Over the life of the machine (20,000 hours/7 years), this equates to 2,184 hours/7 years or $63,795.00 over the life of the machine (based on current year salaries). The success of the elevated sprocket final drive arrangement has been evidenced by the Department's existing Caterpillar D8R and D9R series crawler-dozers.

Cooling System: The Caterpillar cooling system employs a modular radiator that consists of six (6) replaceable core sections. The John Deere employs a single radiator core. The advantage of a modular radiator comes into play when considering the amount of metal (such as rebar) that a landfill dozer encounters on a daily basis. From time to time pieces of rebar and pipe will migrate through the radiator guard, puncturing the core. With the Caterpillar, only one of the radiator core sections needs to be removed for repair or replacement. With John Deere the

entire radiator core needs to be removed along with the hard nose (front grill section) to access the core when repair/replacement is needed.

Standardization: The Caterpillar D8T is functionally identical to the model it will replace as it incorporates a "C" series Caterpillar engine, which is currently in use in many of the Department's on-road and off-road vehicle applications within the fleet. Department staff will be maintaining this equipment, and standardization is an important factor, both from a productivity and cost effectiveness standpoint as it relates to equipment maintenance, repair and operation. The Department has made a significant investment in mechanic staff training, diagnostic equipment, and software utilized in the troubleshooting and repair of Caterpillar engines and equipment components. Although equipment specific training is provided with any new machine, Department operators and service technicians will experience a seamless transition from the D8R to the D8T.

Parts and Service Support: Caterpillar, Inc.'s western United States parts distribution service center is located in Bakersfield, California. Johnson Equipment is the regional parts/service provider for Caterpillar and has a full service warehouse and service facility located within 25 miles of the Department's two main landfill sites. Johnson Equipment currently has a contract to provide parts to the Department with a commitment to fill a minimum of 96% of all parts orders within 24 hours or less. Although the local Komatsu vendor, Road Builders, also has local warehouse facilities in Perris and City of Industry, their quoted fill rate is only 46% and the main Komatsu parts distribution center is located in Ripley Tennessee. In addition, any component rebuild or machining needs for the Caterpillar machine can be performed onsite at Johnson Equipment's local facility. The Komatsu dealer, Road Builders, does not have this same ability locally and must transport components to their Phoenix, Arizona facility. The shipment of components out of state eliminates the Departments ability and/or increases the cost to inspect the component after tear down to verify the damage and assess the repair need and significantly increases the downtime needed for repairs. It should also be noted that there are zero Komatsu trash dozers in operation in California.

Cost Recovery: Resale value is a major consideration in this purchase as the popularity of Caterpillar tractor/dozers of this class is much higher than that of competing models. A review of a three (3) month auction result from December 2012 through February 2013 supplied by Ritchie Brothers auction service revealed 31 Caterpillar D8T tractors/dozers sold throughout North America for an average price of $280,000. In contrast, during the same auction period only 4 Komatsu D155AX tractors/dozers sold at an average price of $92,500 and only 4 John Deere 1050 tractors/dozers at an average price of $91,875. The model year of the Caterpillar units ranged from 2005-2009, Komatsu units ranged from 1999-2008 and the John Deere units ranged from 2002-2008.

The Department has also researched the possibility of purchasing used Caterpillar D8T waste handling dozers through 3 different sources, Ritchie Brothers, Iron Planet, and direct through Caterpillar. During this search it was found that no used dozers were equipped with a Waste Handling package (guards, blade, and track shoes), which are necessary components for landfill operations. The cost of these components coupled with installation costs are approximately $199,318.46. Additionally, during this search it was found that the average operating hours on the machines ranged from 6,500 to 7,500 hours indicating the necessity for a costly total power train rebuild (Transmission, Differential, Torque, and Engine) and a complete undercarriage replacement within 500-1,500 hours at an approximate cost of $130,000. It was also identified that most of the used equipment available direct from Caterpillar and other on-line used equipment sites is located outside of California.

Transportation costs to relocate equipment from out of state would further increase the acquisition cost, (example: Texas to Moreno Valley $19,750). Another consideration of importing equipment from out of state is the requirement to comply with In Use Off Road Diesel Regulations of the California Air Resources Board, which would likely require additional costs of approximately $65,000 to retrofit engines to comply with emissions requirements. It should also be noted that used equipment is "Sold As Is" (no warranty), thus requiring that cost for all repairs immediately upon delivery be borne by the Department.

PRICE REASONABLENESS: The County is receiving a government discount of 28%. The discount being offered is identical to that offered to the federal government.

The proposals were reviewed by personnel from Purchasing and the Waste Management Department. The bids were reviewed based on overall cost and ability to provide a tractor in accordance to the specifications. Bid evaluation resulted in two of the three bids being disqualified for failure to meet specifications and consequently, Johnson Machinery Company was selected as the only responsive/responsible vendor, submitting a bid. The Caterpillar D8T 4i Waste Handling Tractor should be purchased from Johnson Machinery Company at a purchase price of $754,977.89.

REVIEW/APPROVAL: Purchasing and County Counsel concurs with this request.