City Council Staff Report

Date: October 6, 2010 NEW BUSINESS

Subject: WASTEWATER TREATMENT PLANT ELECTRICAL SYSTEM UPGRADE

From: David H. Ready, City Manager

Initiated by: Public Works and Engineering Department

SUMMARY

On April 15, 2009, the City Council authorized the Director of Public Works/City Engineer to issue a Notice to Proceed for Veolia West Operating Services, Inc., ("Veolia") for the design phase of the Wastewater Treatment Plant Electrical System Upgrade, City Project No. 09-03. The design effort has been completed, and Veolia is prepared to solicit construction bids on the City's behalf for the project. Given the magnitude of the cost of this project (estimated at $5.8 Million), staff is recommending that the City Council confirm its intention to fund this project.

RECOMMENDATION:

1) Authorize Veolia to solicit bids for the Wastewater Treatment Plant Electrical System Upgrade, City Project No. 09-03; and/or

2) Provide direction to staff as appropriate.

STAFF ANALYSIS:

The City and Veolia continue to coordinate on various capital improvement projects at the City's Wastewater Treatment Plant (WWTP). The WWTP was initially built in the 1950's with several upgrades during the 1980's. The electrical system, including the main power feed, motor control centers, and other components are 40 or more years old and have met their life expectancy. Upgrading the existing electrical system is the most critical and highest priority project of the WWTP Capital Improvement Plan (CIP).

Since Council's authorization to move forward with the design phase of this project, Veolia and its consultants have coordinated this very complex project, where the entire WWTP must continue to operate as certain portions of the existing electrical

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infrastructure is taken offline and replaced with a new system. In the end, an entirely new electrical system with complete back-up will be installed.

Ordinarily, in accordance with Section 5.3 "Capital Projects" of the agreement between the City and Veolia related to operation and maintenance of the WWTP, Veolia is entitled to solicit construction bids and propose on any WWTP capital project. Seeking the City Council's approval in advance to solicit bids is not required. However, given recent Council action to defer an increase to sewer service charges to fund the WWTP 20-year CIP, staff recommended to Veolia that the City Council confirm their intention to fund the electrical system upgrade given the estimated cost of the project of $5.8 Million.

Veolia has submitted a construction estimate for this project, which is outlined as follows:

1. Demolition, Site Work and Mechanical:	$858,769
2. Electrical:	$4,278,375
3. PLC Equipment:	$51,514
4. SCE Costs:	$67,743
5. Landscaping Repairs:	$57,843
6. Professional Construction Services:	$150,855
7. Veolia Integrated/Automated Services:	$33,750
8. Veolia Construction Management Services:	$254,793
9. Veolia General Liability Insurance:	$50,460
Total:	$5,804,102

The preliminary estimate for this project, as reported to the Council earlier this year as part of its review and approval of the WWTP 20-year CIP, was $3.6 Million. The increased final estimate is a direct result of the complex challenges of phasing the construction of this project in a way where the WWTP remains in operation while different segments of the WWTP electrical system are taken offline and replaced.

Items 1 and 2 will be the scope of work solicited for bids by Veolia, representing over $5 Million in estimated costs. Given the size of this project, it is important to ensure the City is committed to funding this project to avoid obtaining construction bids and bonds from contractors if the project were not to be awarded.

The City issued a Notice Inviting Statements of Qualifications ("SOQ") on March 24, 2009, on behalf of Veolia, requesting qualifications from contractors in the following trades: Scaffolding, Fencing, Earthwork, Paving, Demolition, Concrete, Metals, Coatings, Painting, Mechanical, HVAC and Electrical. To ensure a far-reaching and broad solicitation, Notices for the SOQ were published in the following newspapers: The Desert Sun, The Orange County Register, the Press Enterprise and San Diego Union-Tribune. The deadline to submit qualifications was May 8, 2009, and at that time

29 firms submitted qualifications. After reviewing the submitted qualifications, 26 of the firms were pre-qualified for future wastewater capital projects.

If Council approves bidding this project, Veolia will solicit bids from its prequalified contractors. Given the complexity of this project, and the safety risks inherent at this type of facility, a general solicitation of bids from unqualified contractors is not recommended. However, in the event the bids received by Veolia from its prequalified contractors are unacceptable, staff can return to Council with several options for consideration, including re-issuance of a bidder prequalification process.

On July 7, 2010, the City Council did not approve the recommended increase to sewer service charges necessary to fund the WWTP 20-year CIP. However, despite Council's prior action, staff recommends that the Council fund this project as it is the most critical of all the WWTP capital projects for the following reasons:

- The existing standby generator is not capable of operating the entire WWTP in the event of a power failure;
- Not all WWTP equipment is connected to a standby generator and must be connected to a redundant power source to allow plant operation to continue in the event of a power failure;
- The aging main switch gear has no backup in the event of the failure of one or more switches fusing open or closed;
- The existing electrical system is undersized, at 1600 amps/480 volts the WWTP requires 4000 amps/480 volts to efficiently operate all existing and future WWTP equipment

If a complete power failure were to occur today, the WWTP would not be able to operate which may cause sanitary sewer overflows.

FISCAL IMPACT:

As of June 30, 2010, the Wastewater Fund carried an adjusted cash balance of $13,513,224.05. Of this total, $2,923,717.57 was reserved for encumbrances (open Purchase Orders) and another $6,410,456.48 was reserved for continuing appropriations (funds budgeted for future use), leaving an unrestricted cash balance ("reserve") of $4,179,050.

Previously, Council budgeted $1,000,000 for the digester gas treatment system, and $3,000,000 for the renewable energy project (fuel cell) at the WWTP. As these projects are now considered a lower priority, it will be staff's recommendation that the $4,000,000 budgeted for that project be reassigned to the electrical system upgrade. The Wastewater Fund is also carrying nearly $2,000,000 in an unscheduled capital project account to cover unexpected or emergency work. It will be staff's recommendation that these funds be used to cover the balance of the costs for the

electrical system upgrade with the understanding that there will be no funds budgeted for unexpected or emergency work.

The $6,000,000 currently budgeted for the fuel cell, renewable energy project, and unscheduled capital projects represented most of the $6,410,456.48 that was reserved for future projects. Any future project will need to be funded from unrestricted cash balance ("reserves"). For the 2009/2010 fiscal year ending June 30, 2010, the Wastewater Fund had the following revenue and expenditures:

Revenue		Expenses	
Interest Income:	$234,436.53	Contractual Services:	$3,308,122.70
Unrealized Loss:	($26,687.83)	Capital Projects:	$1,681,560.93
Sewer Service Charges:	$5,411,063.81	Insurance:	$670,925.00
Sewer Connection Fees:	$499,092.35	Electricity:	$213,087.44
Sewer Street Maint. Charge:	$8,646.00	Vehicle Repair/Maint.:	$111,590.00
Miscellaneous Receipts:	$10,025.00	Salary Charges:	$36,126.60
Total Revenue	$6,136,575.86	Other/Misc.:	$14,834.37
		Total Expenses	$6,036,247.04

"Other/Misc." expenses include: worker's compensation charges, office supplies, dues/subscriptions, auditing services, and the grease trap subsidy program. Capital Projects expenses were costs incurred related to previously approved and budgeted WWTP capital projects (i.e. Digester No. 1 Rehabilitation, Storm Drain Line 22, Gravity Thickener Upgrade, etc.).

The Wastewater Fund ended the 2009/2010 fiscal year with an approximate balance (surplus) of $100,000. As previously indicated, the Wastewater Fund carried an unrestricted cash balance ("reserve") of $4,179,050 as of June 30, 2010, which is insufficient to cover any future WWTP capital projects, and should be reserved for unforeseen or emergency use.

SUBMITTED:

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