

TO: James L. App, City Manager
FROM: Doug Monn, Public Works Director
SUBJECT: Award Contract to Black & Veatch Associates for Design of upgrades to the City Wastewater Treatment Plant
DATE: May 20, 2008

NEEDS: For the City Council to consider awarding a contract to Black and Veatch, and engineering design firm for design of significant upgrades to the City's Wastewater Treatment Plant located at 3200 Sulfur Springs Road.

- FACTS:**
1. The City has operated a wastewater treatment plant at 3200 Sulfur Springs Road since the 1950s.
 2. While the City has recently invested in upgraded equipment for sludge handling and effluent chlorination most of the treatment process components of the plant; (head works, clarifiers and trickling filters) were installed in the 1960s with minor modifications made in the 1970s.
 3. The principal water treatment technology at the treatment plant is trickling filters, a technology developed in the 1940s and 1950s.
 4. In 2004, the Regional Water Quality Control Board issued a new permit for the treatment plant. The 2004 permit contains discharge requirements that the aging treatment plant components cannot consistently comply with.
 5. In 2006, the City Council adopted the Adaptive Integrated Water Resources Plan to manage the City's water resources. The plan includes incorporation of recycled water into the City's water resources portfolio.
 6. The plant upgrade necessary to address the City discharge permit requirements and recycle water program is estimated at thirty million dollars.
 7. To initiate the design process, the City advertised for statements of qualifications/proposals from design firms and received three proposals.
 8. The selection criterion for the design firm was developed by staff with the assistance of Cornerstone and T.J. Cross Engineering. The three firms were interviewed on February 27, 2008.
 9. The City's selection panel, unanimously recommended retaining Black & Veatch to provide design services for the treatment plant upgrade project.
 10. Black and Veatch has extensive experience in the design of wastewater treatment plants throughout the West Coast, and is currently under contract to the City to provide design services for construction of the City's future water treatment plant.
 11. The design process will be conducted in two (2) phases. Phase one will require Black & Veatch to prepare an analysis of the current condition of the existing treatment plant, evaluate design options based upon anticipated regulatory criteria and

incorporate City goals with respect to recycle water resulting in a preferred design option in the form of 30% design documents.

12. Staff, project engineers and the Regional Water Quality Control Board will review the design option(s) and drawings before proceeding to Phase two to ensure the proposed project addresses discharge permit requirements and long term needs/goals. Upon completion of this review, staff will return to City Council with a cost to complete the design and seek construction bids.
13. Staff believes the two part process will result in lower overall design costs and better quality control given that it will allow the design engineer to base final design contract costs on actual data rather than a 'projected' design cost that must provide for unforeseen conditions/requirements not known at the time of the initial contract.
14. Black and Veatch have provided the City with a cost proposal of \$900,000 to complete Phase one of the assessment/30% design.

**ANALYSIS &
CONCLUSION:**

The Sulfur Springs Road Treatment Plant is a vital asset to the City. The existing plant cannot reliably meet the requirements of the new discharge permit issued by the Regional Board. It is also expected that, as the groundwater basin water supplies tighten, recycled water will become an important water resource in the City's future. The upgrades proposed as part of this project will ensure that the treatment plant can meet existing and future discharge permit requirements reliably now and in the future. It will also be the first step towards creating another source of water for the City consistent with the Integrated Water Resources Plan. Therefore, it is in the best interest of the City of Paso Robles and its sewer users to retain the services of Black & Veatch to provide Professional Engineering Design Services associated with the design of the upgrades to the City's wastewater treatment plant.

POLICY

REFERENCE:

Regional Water Quality Discharge Permit and Integrated Water Resources Plan.

FISCAL IMPACT:

Black & Veatch proposes to provide Professional Engineering Design Services for a cost not to exceed \$900,000. Because of the scope of the Project, complexities involved in design and modification of an existing wastewater treatment facility, and the possibility of design amendments, particularly those that may come up during design option review of the plant upgrades, staff suggests a \$200,000 contingency be included should additional hours be required. The cost for this service would be paid from the Sewer Enterprise Fund.

It is intended that construction of the treatment plant upgrades will be funded through a loan from the State Revolving Fund. The State will provide low cost loans (typically 67% of a 'A' rated bond interest rate) for projects that improve water quality. The project must be properly studied and documented to apply for this source of funding. The financing of the project will be developed as the project costs are fully known and the proper project documentation and analysis has been provided by Black and Veatch.

In the future a complete financing plan for the treatment plant upgrade Project will be presented. The financing plan will include the funding requirements to construct

the project, the operational cost of the new treatment plant, and potential debt service needs.

	Total	% Operations	% Connection Fees
River Road Sewer (with road closure)	\$5,277,000	50% or \$2,638,500	50% or \$2,638,500
Sodium Hypochlorite	\$1,500,000	70% or \$1,050,000	30% or \$450,000
Palm Court Sewer	\$375,000	30% or \$112,500	70% or \$262,500
WWTP Upgrade Design & Oversight	\$1,270,000	100% or \$1,270,000	
	\$8,422,000	\$5,071,000	\$3,351,000

- OPTIONS:**
- a.** Adopt Resolution No. 08-xx appropriating \$1,100,000 from Sewer Enterprise Funds to Budget No. 601.910.5224.683 and authorizing the City Manager to enter into a contract with Black & Veatch in the amount of \$900,000 to provide professional engineering design services associated with the design of upgrades to the Paso Robles Wastewater Treatment Plant.
 - b.** Amend, modify, or reject the above option.

Prepared by: Derrill G. Whitten Jr. PE, Wastewater Consultant,
Cornerstone Engineering, Inc.

Attachments (2)

- 1) Scope of Work
- 2) Resolution

RESOLUTION NO. 08-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES
APPROPRIATING FUNDS AND AWARDED A CONTRACT
TO BLACK & VEATCH FOR PROFESSIONAL ENGINEERING DESIGN SERVICES
ASSOCIATED WITH THE DESIGN OF A WASTEWATER TREATMENT PLANT UPGRADE

WHEREAS, the City of Paso Robles owns and operates a trickling filter wastewater treatment plant at 3200 Sulfur Springs Road (WWTP); and

WHEREAS, the WWTP operates under a permit from the California Regional Water Quality Control Board under NPDES permit CA0047953; and

WHEREAS, the permit was renewed in May, 2004 with more stringent discharge requirements then had been required in the past permit; and

WHEREAS, the City of Paso Robles has adopted goals and objectives in it's Integrated Water Resources Plan (IWRP) which includes recycled water as a valuable and sustainable water resource for the future; and

WHEREAS, the design process will require a professional engineering firm to ensure its functionality and completion in a timely manner, and;

WHEREAS, because of their demonstrated depth of experience, understanding of the purpose of the WWTP, direct experience with the expansion and upgrade of trickling filter treatment plants, and the needs of the City, it would appear to be in the best interest of the City of Paso Robles and its wastewater users to retain the service of Black & Veatch to provide Professional Engineering Design Services for the design of the WWTP upgrade facilities at a cost not to exceed. \$900,000 plus a contingency of \$200,000 for unforeseen design amendments.

THEREFORE, BE IT RESOLVED AS FOLLOWS:

SECTION 1. The City Council of the City of Paso Robles does approve a one time supplemental budget appropriation from the Sewer Enterprise Fund in the amount of \$1,100,000 to budget account 601.910.5224.683; and

SECTION 2. The City Council does hereby award a contract to Black & Veatch for Professional Engineering Design Services associated with the design of upgrades to the Paso Robles Wastewater Treatment Plant in the amount of \$900,000, and authorizes the City Manager to execute the contact.

PASSED AND ADOPTED by the City Council of the City of Paso Robles this 20th day of May 2008 by the following votes:

AYES:
NOES:
ABSTAIN:
ABSENT:

Frank R. Mecham, Mayor

ATTEST:

Deborah D. Robinson, Deputy City Clerk