



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: December 23, 2008

TO: Mayor and Councilmembers

FROM: Engineering Division, Public Works Department

SUBJECT: Contract For Preliminary Design Of The El Estero Wastewater Treatment Plant Influent Pump Station Rehabilitation

RECOMMENDATION:

That Council authorize the Public Works Director to execute a contract with Brown and Caldwell Engineering (Brown and Caldwell) for \$156,760 to conduct professional engineering analysis of and recommend rehabilitation procedures for the influent pump station at El Estero Wastewater Treatment Plant (El Estero), and authorize the Public Works Director to approve expenditures up to \$15,676 to cover any cost increases that might result from change orders for extra work.

DISCUSSION:

The influent pumps at El Estero convey all raw wastewater through the treatment process. These critical infrastructure components consist of three pumps installed in the 1970's and a newer fourth submersible, variable frequency drive pump that was installed in 2006.

Brown and Caldwell was contracted to provide a peer review on the performance of the fourth submersible pump after staff suspected early deterioration of the pump's impeller. This pump had been previously recommended as the replacement standard for the remaining three pumps. The peer review results recommended maintaining the highly reliable and very robust existing three pumps by rehabilitating them. The rehabilitation option will provide long term reliability and better energy efficiency at a lesser cost than complete replacement.

Rehabilitation analysis will include vibrational and torsional studies and wet well improvements, and compile direction on parts and design of the rehabilitation of the existing pumps. Staff will then proceed with the final design of the rehabilitation of the pumps under a separate contract.

Staff recommends contracting with Brown and Caldwell to perform and oversee pump analysis and recommend direction for rehabilitation of the existing pumps.

BUDGET/FINANCIAL INFORMATION:

Project costs for rehabilitation of the pumps are estimated to be between \$800,000 and \$1.2 million, which is considerably less than replacing the pumps and motors. Exact costs are difficult to determine until special analysis is performed. There are sufficient funds in the Wastewater Bond Fund for full replacement of the pumps. Staff anticipates construction cost to be less than \$1.2 million due to rehabilitation, but is unable to provide more detailed cost estimates until after the pumps have been evaluated.

SUSTAINABILITY IMPACT:

Rehabilitating the existing influent pumps rather than replacing them saves parts and materials and reduces carbon footprint emissions by reducing the amount of materials produced and delivered onsite. Rehabilitating the pumps will result in higher efficiencies and reduced maintenance.

PREPARED BY: John Schoof, Wastewater System Manager/LC/sk

SUBMITTED BY: Christine Andersen, Public Works Director

APPROVED BY: City Administrator's Office