



# CITY OF SANTA BARBARA

## COUNCIL AGENDA REPORT

**AGENDA DATE:** December 16, 2014

**TO:** Mayor and Councilmembers

**FROM:** Engineering Division, Public Works Department

**SUBJECT:** Contract For Final Design Of El Estero Wastewater Treatment Plant Secondary Process Improvements Project – Phase II

**RECOMMENDATION:** That Council:

- A. Authorize the Public Works Director to execute a City Professional Services contract with Brown and Caldwell in the amount of \$788,683 for final design of the El Estero Wastewater Treatment Plant Secondary Process Improvements Project – Phase II, and authorize the Public Works Director to approve expenditures of up to \$78,868 for extra services of Brown and Caldwell that may result from necessary changes in the scope of work; and
- B. Adopt, by reading of title only, A Resolution of the Council of the City of Santa Barbara Finding that the El Estero Wastewater Treatment Plant Secondary Process Improvements Project is Substantially Complex and, Therefore, Requires a Construction Contract Retention of Ten Percent.

**EXECUTIVE SUMMARY:**

The El Estero Wastewater Treatment Plant (El Estero) has longstanding issues with its secondary treatment process. Over the past few years, Brown and Caldwell (B&C), through a competitive process, was selected and awarded contracts to evaluate and develop recommendations to improve the secondary treatment process, prepare preliminary design reports (PDR) and, most recently, for Phase I final design services for the Secondary Process Improvements Project (Project). A \$20 million State Revolving Fund (SRF) loan has now been executed and will be used to finance design and construction of this Project. Staff recommends that Council authorize the Public Works Director to execute a City Professional Services contract with B&C for the Phase II final design services.

Staff has evaluated the Project and believes it to be substantially complex. Although the California Public Contract Code was amended in 2012 to limit retention from ten percent to five percent, if a project is deemed substantially complex by the governing

body, a higher amount may be retained. To comply with the Public Contract Code, staff recommends that Council adopt a resolution deeming the Project substantially complex, and approve the increase of retention to 10 percent.

## **DISCUSSION:**

### **BACKGROUND**

El Estero processes approximately 8 million gallons of wastewater each day. El Estero was originally constructed in 1952; however, a majority of its current infrastructure was constructed in 1978 to meet 1972 Clean Water Act requirements. Although subsequent capital improvements have been completed in past years, El Estero has longstanding issues with highly variable secondary effluent quality, operational inflexibility, energy inefficiency and secondary treatment capacity.

On June 29, 2010, Council awarded a contract to B&C to prepare an Assessment Report to evaluate and develop recommendations to improve the secondary treatment process at El Estero. B&C, working with staff, evaluated several alternative operational approaches for improving the secondary treatment process, which resulted in staff's recommendation to pursue the Project.

On October 11, 2011, Council awarded a contract to B&C to prepare a PDR for the Project, and subsequently awarded a contract for a second phase PDR on January 15, 2013. Combined, these two PDRs form the basis for the design, which provides for refurbishment of the major air process equipment associated with the secondary treatment process aeration basins, and for the upgrades to the secondary clarifiers, including improvements to return-activated sludge pumping equipment and piping. These process improvements will improve and stabilize the secondary effluent quality and address El Estero's long standing issues with operational inflexibility, energy efficiency and secondary treatment capacity.

On September 9, 2014, Council awarded a contract to B&C for Phase I of the final design for the Project. At that time, the City had initiated an application for a \$20 million SRF loan to finance design and construction of this Project, and anticipated an executed agreement with the State of California within a few months. The SRF agreement has now been executed, and staff is seeking approval for Final Design Phase II.

### **PROJECT DESCRIPTION**

The final design work consists of modifications to El Estero's secondary treatment process to a nitrification/denitrification system, upgrades to the existing aeration and secondary clarifier sludge withdrawal systems, and implementation of nitrate return to address odor control issues and clarifier performance issues. This Project will address the longstanding issues with highly variable secondary effluent quality, operational

inflexibility, energy inefficiency, and secondary treatment capacity. The nitrification/denitrification process will produce a more stable secondary effluent, create higher-quality process water for subsequent production of recycled water, and will yield a higher quality of treated effluent discharge into the Pacific Ocean.

## CONSTRUCTION CONTRACT RETENTION

Contract retention is the withholding of a portion of payment that is due to a contractor on a Public Works project to ensure that there are sufficient funds to complete the project and pay any claims of non-payment by subcontractors against the general contractor. The California Public Contract Code was amended in 2012 to limit retention from ten percent to five percent of the total construction contract price. However, if a project is deemed substantially complex by the governing body, a higher amount may be retained. The finding must be made during a properly noticed and scheduled public hearing, prior to advertising for bids, and the bid documents must include the finding and designated retention amount.

Staff has evaluated the Project and believes it to be substantially complex for the following reasons:

- The Project construction cost is estimated to be approximately \$17 million and is funded by an SRF Agreement;
- The Project involves significant upgrades to the secondary treatment process within an operational wastewater treatment facility;
- Construction requires coordination between multiple disciplines (including structural, mechanical, process, electrical, civil, and instrumentation); and
- The Contractor must comply with Coastal Development Permit requirements.

To comply with the Public Contract Code, staff recommends that Council adopt a resolution deeming the Project substantially complex, and approve the increase of retention to 10 percent.

## FUNDING

The City has received a \$20 million SRF loan to finance design and construction of this Project. Staff recommends that Council authorize the Public Works Director to execute a contract with B&C in the amount of \$788,683 for preliminary design, and for \$78,868 for potential extra services, for a total amount of \$867,551.

B&C was selected as the most qualified firm through a competitive Request for Proposal process. Staff has reviewed the costs and the scope of work for the preliminary design and determined that both are appropriate for the size and complexity of the Project.

The following summarizes all estimated total Project costs:

**ESTIMATED TOTAL PROJECT COST**

Assessment Report (by Contract) – Completed	\$267,820
Project Administration (by Staff) - Completed	\$40,646
<b>Subtotal</b>	<b>\$308,466</b>
Preliminary Design Report Phase 1 (by Contract) – Completed	\$398,886
Preliminary Design Report Phase 2 (by Contract) – Completed	\$285,136
Project Administration (by Staff) – Completed	\$63,471
Environmental Review and Permitting - Completed	\$36,194
<b>Subtotal</b>	<b>\$783,687</b>
Final Design Phase I Design (by Contract)	\$610,508
Final Design Phase II (by Contract)	\$867,551
Project Administration (by Staff)	\$104,060
<b>Subtotal</b>	<b>\$1,582,119</b>
Estimated Construction Contract w/Change Order Allowance	\$17,600,000
Estimated Construction Management/Inspection (by Contract)	\$1,600,000
Estimated Construction Support Services (by Contract)	\$640,000
Estimated Project Administration (by Staff)	\$161,550
<b>Subtotal</b>	<b>\$20,001,550</b>
<b>TOTAL PROJECT COST</b>	<b>\$22,675,822</b>

**SUSTAINABILITY IMPACT:**

These processes will improve water quality for both recycled water production and treated effluent discharge into the ocean. They will also provide for more energy efficient equipment at El Estero as the blowers, the number one energy demand for El Estero, will be updated to a more energy efficient model.

**PREPARED BY:** Linda Sumansky, Principal Civil Engineer/LA/mh

**SUBMITTED BY:** Rebecca J. Bjork, Public Works Director

**APPROVED BY:** City Administrator's Office