



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: February 24, 2009

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Professional Services For Design Of Headworks Screening Replacement Project At El Estero Wastewater Treatment Plant

RECOMMENDATION:

That Council authorize the Public Works Director to execute a contract with Carollo Engineering (Carollo) in the amount of \$396,494, to design a replacement Headworks screening, conveyance, and washer compactor system for influent wastewater flow into the El Estero Wastewater Treatment Plant (EEWTP), and authorize the Public Works Director to approve expenditures up to \$40,000 to cover cost increases that may result from unanticipated changes to the scope of work.

DISCUSSION:

The existing screens and solids removal system located at EEWTP, has reached its useful lifetime and is in need of replacement. Screening is a means to capture large and non-soluble solids at the intake of the EEWTP. Screening and removal of large and/or non-soluble waste has a direct impact on the overall wastewater treatment process. Solids passing into the wastewater treatment process delay time to decompose the overall waste stream, thus affecting the quality and manageability of treatment time. The existing Headworks screens do not capture all the influent flow, resulting in solids passing into the treatment process. In addition, this process is not adequately controlled and does not have conveyance from the screening area to the disposal pick-up.

Design of a replacement system to screen the influent to the EEWTP is challenging for several reasons: space in the Headworks area is very limited; it is in a critical location at the plant; and the compaction/hauling area for the screened material is at a substantially higher elevation than the screens. Another significant design challenge is providing for bypass pumping of incoming sewage during the construction.

Design challenges must also address construction sewage bypassing of all incoming waste streams. The design scope incorporates automated controls and Supervisory Control and Data Acquisition integration, modifications to the washer compactor area, replacement of washer compactor units, and a study of the emergency electrical generator's use for the new mechanical screens and conveyance.

Carollo was selected for this design project through a Request for Proposal process. They have extensive background with the EEWTP process and are familiar with the Headwork's screening design challenges. Carollo performed the preliminary analysis and have prepared a proposal to address the critical design elements necessary for a successful replacement of the Headwork Screens.

BUDGET/FINANCIAL INFORMATION

Funds for design of the Headworks screening are available in the Wastewater Capital Fund. However, there are not sufficient funds at this time for the full replacement construction cost estimates of approximately \$4.2 million. Staff is recommending we proceed with the design in anticipation of future Capital Improvement Project funding, grants, or possible economic stimulus funds. Staff will not solicit bids until funds have been identified.

SUSTAINABILITY IMPACT

Removal of solids through the screening process reduces overall wastewater treatment process time which saves energy. Any new mechanical equipment resulting from the design will be selected for removal and energy efficiency.

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

SUBMITTED BY: Christine F. Andersen, Public Works Director

APPROVED BY: City Administrator's Office