



# CITY OF SANTA BARBARA

## COUNCIL AGENDA REPORT

**AGENDA DATE:** March 18, 2008

**TO:** Mayor and Councilmembers

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

**SUBJECT:** Contract For Hydraulic Modeling Of The Wastewater Collection System – Phase 2

### RECOMMENDATION:

That Council authorize the Public Works Director to execute a contract with Akel Engineering Group, Inc. (Akel), in the amount of \$84,540 to further develop the wastewater collection system model, and approve expenditures up to \$12,500 to cover any cost increases that may result from contract change orders for extra work.

### DISCUSSION:

On April 17, 2007, Council approved a contract with Akel to expand the wastewater collection system's hydraulic model to encompass the entire system's sewer trunk mains throughout the City. This project is still currently underway with a scheduled completion date of June 30, 2008. The cost of this contract was \$64,080, with \$6,500 for extra services. The existing contract has already provided valuable information to the City's planning efforts for wastewater main improvements. The model can replicate existing average day flow conditions, peak flows throughout the day, and flows during rain events. In addition, the model allows the user to perform scenarios such as upgrading pipe sizes.

Modeling work to date has allowed staff to conduct analysis that has resulted in the City saving money, e.g., the model was used to evaluate the existing 33-inch Cabrillo Beach trunk main for consideration of future pipe size upgrades. Modeling analysis supported the decision not to upgrade the size of this main. Rather than increasing the size, results from the model show that funds are better spent on reducing infiltration by rehabilitating the main, which is a significant cost savings to the City.

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REVIEWED BY: \_\_\_\_\_ Finance \_\_\_\_\_ Attorney

Agenda Item No. \_\_\_\_\_

The Phase 2 modeling will provide additional evaluation information for the General Plan Update Environmental Impact Report, which includes evaluating existing land uses and modeling for development in current zoning conditions. The scope also includes expanding the sewer system model and providing software training for City staff. This work is critical and beyond the original scope. In addition, the Phase 2 contract includes authorization for additional work from the April 17, 2007 contract for collecting record drawing information that was deleted from the original contract in order to do needed modeling analysis.

**CONSULTANT QUALIFICATIONS:**

Akel was selected based on experience in using the modeling software, excellent qualifications, and the successful completion of other modeling projects for the City. Akel has submitted an acceptable proposal in the amount of \$84,540 to provide the technical expertise needed for completion of the Phase 2 scope of work. Staff requests an authorization allowance for extra services up to \$12,500 (approx. 15%), based on the size and type of the scope of services.

**CONTRACT COST**

Professional Services Contract (Akel)	\$84,540
Extra Services	\$12,500
<b>Total Contract Amount</b>	<b>\$97,040</b>

**FUNDING:**

There are sufficient funds in the Wastewater Capital Fund to cover the cost of these professional services.

**SUSTAINABILITY IMPACT:**

The ability to model proposed collection system changes prior to actually constructing them allows for efficient use of resources, and construction of the most effective improvements. Additionally, using the model to predict areas of current or future hydraulic restrictions in the sewer system aids staff with preventing sewage spills.

**PREPARED BY:** Homer F. Smith II, Principal Engineer/LC/sk

**SUBMITTED BY:** Paul Casey, Acting Public Works Director

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