



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: December 9, 2014

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Contract For Asset Management Program Development Services For The Water Distribution System

RECOMMENDATION:

That Council authorize the Public Works Director to execute a contract with Brown and Caldwell in the amount of \$244,694 to provide Asset Management Program development services for the Water Distribution System, and authorize the Public Works Director to approve expenditures of up to \$24,469 for extra services of Brown and Caldwell that may result from necessary changes in the scope of work, for a total amount not to exceed \$269,163.

DISCUSSION:

Background

The City's water distribution system is comprised of 11 pump stations, 13 reservoirs, 18 pressure reducing stations, 304 miles of water mains, and thousands of valves, fire hydrants and related appurtenances necessary to provide the City's water customers with the delivery of safe drinking water. The replacement cost for the City's water distribution system assets is estimated at greater than \$400,000,000, which underscores the importance of maintaining the system by maximizing the life span of many individual assets.

The Water Resources Division's Capital Improvement Program regularly constructs capital projects to improve the water distribution system, such as the Water Main Improvement Program, which replaces on average one percent of the City's water mains each fiscal year. In addition to water mains, the water distribution system has many mechanical processes, facilities, appurtenances and sophisticated computer programs that need continual maintenance, upgrades and refurbishment. This all comes at a significant cost to the City's water rate-payers. Staff recognizes that the best approach to managing the water distribution system's assets, to ensure reliable system operations and maximize equipment lifecycles, is through a well planned organized Asset Management Program (AMP).

Brown and Caldwell (B&C) was chosen to develop an AMP for the City's water distribution system assets through a competitive Request For Proposal process. B&C has successfully completed the first phase of the work, assessing the condition and maintenance needs of the water distribution reservoirs, pump stations, and pressure control facilities, as well as the workflow for the Pump crew staff who operate and maintain these facilities.

B&C performed their analysis and used the City's existing computer maintenance management system (CMMS) to input data for the prioritization of work tasks and to generate work orders for scheduled equipment maintenance associated with these water distribution structures and facilities. This workflow is now being managed through a CMMS, which provides greater planning of scheduled work, less down time of equipment, and overall improved facility management.

Proposed Work

The proposed second phase of the AMP development will focus on the City's water main system. B&C will develop a detailed system-wide asset inventory and will create a computerized work order system for prioritizing tasks and scheduling maintenance to maximize equipment and water main lifecycles. The proposed work for the second phase of the AMP development includes:

- Expand the CMMS for work management optimization, to ensure that assets are being properly maintained on a set schedule for the benefit of extending asset life cycles. A workforce review analysis will be included in this task;
- Creation of a water main replacement program that ranks the City's water mains based on the risk, consequence, and cost of failure; fire protection needs; and water age. A prioritized water main replacement tool will be created under this task; and
- Creation of a replacement and rehabilitation model for water distribution assets for long-term planning purposes, including a Distribution System Risk and Cost of Failure Analysis. This model will provide estimates of annual funding levels required to support the long-term capital improvement needs of the water distribution system.

Staff recommends that Council authorize the Public Works Director to execute a contract with B&C in the amount of \$244,694 for the work as described above; and that Council authorize the Public Works Director to approve expenditures of up to \$24,469 for extra services of B&C that may result from necessary changes in the scope of work, for a total amount of \$269,163.

BUDGET/FINANCIAL INFORMATION:

This project was anticipated, and there are adequate appropriated funds in the Water Capital Fund for this work.

PREPARED BY: Catherine Taylor, PE, Water System Manager/mh

SUBMITTED BY: Rebecca J. Bjork, Public Works Director

APPROVED BY: City Administrator's Office