



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

DRAFT

AGENDA DATE: November ____, 2009

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Contract For Water Conservation Technical Evaluation

RECOMMENDATION:

That Council authorize the Public Works Director to execute a contract with Maddaus Water Management in the amount of \$66,880 for preparation of a water conservation technical evaluation of the City's Water Conservation Program as an element of the City's Long Term Water Supply (LTWSP) update, and authorize the General Services Manager to approve expenditures of up to \$6,688 for extra services of Maddaus Water Management that may result from necessary changes in the scope of work.

DISCUSSION:

Staff is conducting a three phase analysis of the City's Water Conservation Program in support of the *Plan Santa Barbara* process and an update of the City's Long Term Water Supply Program. Phase 1 was part of the recently completed Water Supply Planning Study by Carollo Engineers and their subcontractor, Maddaus Water Management. It included collection and review of data for the Water Conservation Program to date and a general assessment of future conservation potential for use in the water supply analysis of the *Plan Santa Barbara* environmental process.

Phase 2, recommended in this report, is a detailed quantitative, technical, and cost/benefit evaluation of future options for the Water Conservation Program, to be conducted by Maddaus Water Management. This technical evaluation will provide the Water Conservation Program with a comprehensive technical and economic analysis of the most cost effective options for additional demand reduction through conservation measures. This type of analysis is the current state of the art in water conservation programs and has not previously been completed by the City. The scope of work includes:

- Calibrate the Maddaus Water Management "Decision Support System" water efficiency model (DSS Model) for use in analyzing the City's water service area and demand forecasts using data developed during Phase 1;

- Develop an initial list of approximately 80 conservation measures with potential applicability for the City's program; conduct a screening workshop to discuss each measure and narrow the list of measures for further analysis; and summarize the results in a letter report;
- Evaluate the selected potential conservation measures using the DSS Model; forecast water savings and cost/benefit ratios for each measure by type of customer;
- Package the most appropriate conservation measures for the City into three alternative programs of multiple measures and evaluate each package in terms of demand reduction, budget impact, and suitability for the City's program; and
- Prepare a technical memorandum to document the results of the analysis.

Maddaus Water Management has completed over 150 water conservation technical evaluations in California and across the nation, including recent projects with East Bay Municipal Water District, Marin Municipal Water District, and City of Oceanside. The proposed technical analysis will provide a comprehensive water conservation planning document prepared by a widely recognized water conservation engineering firm to be used to support decision making during the LTWSP update. It will allow credible technical and economic comparisons between water conservation measures and other water supply options. This is particularly important because the City's program has already taken advantage of many conservation opportunities over the past twenty years.

Phase 3 of this process will be staff's work to use the technical analysis to develop conservation recommendations for the updated LTWSP. The Water Commission reviewed the technical evaluation proposal on October 12, 2009 and voted to

SUSTAINABILITY IMPACT:

Water conservation is a key component of the City's water supply strategy. The proposed technical evaluation will provide important information on opportunities to expand the roles of water conservation in the City's water supply and sustainability efforts.

BUDGET/FINANCIAL INFORMATION:

Funds for the technical evaluation are available in the 2010 Water Fund Operating Budget. This includes approximately \$30,000 in funding and work items originally included as part of the Water Supply Planning Study, but reserved for use in this phase of the conservation work.

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SUBMITTED BY: Christine F. Andersen, Public Works Director

APPROVED BY: City Administrator's Office