



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

File Code No. \_\_\_\_\_

# CITY OF SANTA BARBARA

## COUNCIL AGENDA REPORT

### Item 7

**AGENDA DATE:** September 22, 2015

**TO:** Mayor and Councilmembers

**FROM:** Public Works Department, Water Resources Division

**SUBJECT:** Contract To Provide A Desalination Subsurface Intake Initial Screening Analysis And A Potable Reuse Feasibility Study

**RECOMMENDATION:** That Council:

- A. Authorize the Public Works Director to execute a Professional Services contract amendment with Carollo Engineers, Inc., in the amount of \$610,947 to provide a Desalination Subsurface Intake Initial Screening Analysis and a Potable Reuse Feasibility Study, and approve expenditures of up to \$61,095 for extra services of Carollo Engineers, Inc., that may result from necessary changes in the scope of work, for a total contract amendment amount of \$672,042; and
- B. Increase estimated revenues and appropriations in the Water State Revolving Loan Fund in the amount of \$672,042 for the Desalination Subsurface Intake Initial Screening Analysis and the Potable Reuse Feasibility Study, which will be reimbursed from the State Revolving Fund loan for the Desalination Reactivation Project.

### BACKGROUND

At its meeting of September 23, 2014, Council directed Staff to return to Council with a plan to consider the feasibility, cost, and timeline associated with both converting the existing offshore intake to a subsurface intake (SSI) for the desalination plant and evaluating opportunities, feasibility, and costs for potable reuse.

On January 30, 2015, the Regional Water Quality Control Board (RWQCB) adopted an Amendment to the City's El Estero Wastewater Treatment Plant National Pollutant Discharge Elimination System Permit (NPDES Permit) that incorporated Council's direction to staff and added two milestones: submittal of a Feasibility Study Work Plan (Work Plan) to the RWQCB by August 31, 2015; and report the findings of the Feasibility Study to the RWQCB at a public meeting, no later than June 30, 2017.

On May 5, 2015, Council approved a contract with Carollo Engineers, Inc., in the not-to-exceed amount of \$343,925 to develop the Work Plan. The Work Plan was submitted to the RWQCB in August 2015. The contract under consideration is for an SSI Initial

Screening Analysis and a Potable Reuse Feasibility Study that were included in the Work Plan.

## **DISCUSSION:**

In order to meet Council's and the RWQCB's directives most effectively, three separate contract phases are necessary:

- Phase 1: Creating a Work Plan - Completed under a contract approved by Council on May 5, 2015 with Carollo Engineers, Inc., (Carollo), and submitted to the RWQCB in August 2015;
- Phase 2: Setting basic parameters for the SSI Design And Initial Screening Analysis and The Potable Reuse Feasibility Study; and
- Phase 3: Providing a study of SSI alternatives that successfully passed through an initial screening analysis.

At this time, Phase 1 has been completed, and staff is requesting approval of a contract with Carollo to move forward with Phase 2 as described below. If the Desalination SSI Initial Screening Analysis and/or the Potable Reuse Feasibility Study result in any viable options, staff will return to Council for approval of a Phase 3 contract. The preliminary cost estimate for the Phase 3 work is approximately \$1,100,000.

### **Phase 1 (Completed) – Work Plans for Desalination SSI and Potable Reuse Feasibility Studies:**

The Work Plans for Phase 1 are on file for review at the City Clerk's Office and in the Mayor and Council Reading File.

Phase 1 included one public panel workshop for input on the Work Plan for both the Desalination SSI and the Potable Reuse Feasibility Studies before they were finalized. Subsequent phases will also have public panel workshops.

### **Phase 2 (Proposed Contract) – Desalination SSI Initial Screening Analysis and Potable Reuse Feasibility Study:**

#### *Desalination SSI Initial Screening Analysis:*

- Perform preliminary geophysical studies (tsunami hazard, sea level rise and sediment transport analyses) on the SSI. The studies will assist in the Initial Screening Analysis, and the results will be documented in a report;
- Determine the required SSI capacity and candidate sites for SSIs and supporting facilities, which will pass through an initial screening based on set technical criteria. A preliminary groundwater modeling analysis will assist with the Initial Screening Analysis;
- Regulatory and permit requirements for the Desalination SSI Project will be documented in a technical memorandum.

- A draft of the Initial Screening Analysis will be reviewed by a technical advisory panel with public comment; and
- Complete the Initial Screening Analysis by Spring 2016.

*Potable Reuse Feasibility Study:*

- Provide a summary of regulatory and permit requirements, and review of up to 20 potable reuse project alternative concepts, along with an estimated schedule and cost for each alternative. Summarize the information in a technical memorandum.
- Compare the preferred potable reuse alternatives to the City's current Drought Plan (i.e., the Desalination Project).
- Draft a Potable Reuse Feasibility Report, which will be reviewed by a technical advisory panel with public comment.
- Complete the Potable Reuse Feasibility Report by Summer 2016.

Project costs associated with Phase 2 are estimated at \$672,042, which includes 10 percent for extra services that may result from changes in the scope of work.

**BUDGET/FINANCIAL INFORMATION:**

Staff was successful in securing a State Revolving Fund loan for the Desalination Project and related work. Staff recommends that Council increase estimated revenues and appropriations in the Water State Revolving Loan Fund for the Desalination SSI Initial Screening Analysis and the Potable Reuse Feasibility Study by \$672,042. Staff will seek loan reimbursement for these proposed expenditures.

At its meeting on September 14, 2015, the Water Commission reviewed this item and voted X/X to ??????? in concurrence with the Council Report recommendations.

Work Plans for Phase 1 are on file for review at the City Clerk's Office and in the Mayor and Council Reading File

**PREPARED BY:** Joshua Haggmark, Water Resources Manager/RLR/mh

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

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