



# CITY OF SANTA BARBARA

## COUNCIL AGENDA REPORT

**AGENDA DATE:** August 2, 2016

**TO:** Mayor and Councilmembers

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

**SUBJECT:** Increase In Construction Change Order Authority For The Charles E. Meyer Desalination Facility

**RECOMMENDATION:** That Council

- A. Increase appropriations and estimated revenues in the State Revolving Fund (SRF) Loan by \$3,950,000 to cover the costs of the proposed contracts and City staff costs related to the reactivation of the Charles E. Meyer Desalination Facility, funded from an expected increase in the SRF loan;
- B. Authorize an increase in the Public Works Director's Change Order Authority to approve expenditures for extra work for the contract for the Charles E. Meyer Desalination Facility with IDE Americas, Inc., Contract No. 25,221, in the amount of \$3,750,000, for a total Project expenditure authority of \$51,351,654; and
- C. Authorize an increase in the Public Works Director's Change Order Authority to approve expenditures for extra services for the contract for Owner Support Services for the Charles E. Meyer Desalination Facility with Carollo Engineers, Inc., Contract No. 25,222, in the amount of \$125,000, for a total Project expenditure authority of \$2,423,782.

### **DISCUSSION:**

#### Background

The City's 2011 Long Term Water Supply Plan (LTWSP) included the Charles E. Meyer Desalination Facility (Desal Facility), which was completed in March 1992, and put into long-term standby mode in 1997. The Desal Facility was included in the plan as a recognized drought water supply. The City is currently experiencing a drought condition that is drier than the historic drought of record, which was used as the drought planning basis of the LTWSP. As a result of continued dry conditions, Council awarded a contract on July 21, 2015, to IDE Americas, Inc. (IDE), to reactivate the Desal Facility. The reactivation will ensure the community continues to have sufficient uninterrupted drinking water supplies, should drought conditions continue beyond 2016.

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Current Status

Onsite construction for the reactivation of the Desal Facility started in September 2015. To date, foundations have been completed for all equipment, and all underground piping and electrical conduits have been installed at the Desal Facility. The reverse osmosis skids have been delivered and set in place. Work continues on the above-ground piping and electrical conduits for the skids. The power distribution center for the Desal Facility is in place and the electrical tie-in work continues. The foundations for the switchgear that supplies power from the Southern California Edison (SCE) substation and the new transformer for the El Estero Wastewater Treatment Plant are complete. The final tie-over for electrical power is scheduled for the end of August. The marine work to install the intake pumps began at the end of July and will take a few months to complete.

There have been several large project change orders, which are summarized in the table below:

Change Order to Date for IDE Contract

<b>Item</b>	<b>Description</b>	<b>Change Order Costs</b>	<b>Change Order Allowance</b>
Change Order/Allowance	Original Change Order Allowance with IDE Contract		\$3,394,420
Contaminated Soils	Testing, planning, removal and disposal of contaminated soils – totals through April and including Project acceleration	\$2,045,841	
Contaminated Soils	Increase in IDE contract		\$2,300,000
SCE changes	Unable to use SCE facilities - install a separate pullbox and conduit for the Desal Facility and El Estero electrical	\$631,081	
Direct Bury Electric	Electrical line to the pump station found to be encased in concrete, preventing removal for replacement – installation of approximately 1700 feet of new electrical cable required.	\$615,723	
Brine Box Modifications	Remove work from the Environmentally Sensitive Habitat area buffer and obtain a Coastal Development permit for work that cannot be removed. Install a backflow device to prevent brine from entering the secondary effluent sampler.	\$569,744	
Other	SCADA/communication	\$262,175	
<b>TOTAL</b>		<b>\$4,124,564</b>	<b>\$5,694,420</b>

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Several new items described below have potentially large associated change orders and will require an increase in project funding:

- At the main Desal Facility site, debris found in the contaminated soils necessitated that the contractor use a different method of shoring that required more soil removal than planned for the installation of underground piping and electrical conduit. Some foundation areas needed to be over-excavated and additional backfill had to be imported to achieve the appropriate soil compaction. The areas where storm water features were planned needed to be extended and excavated to groundwater level per the Santa Barbara County environmental codes to ensure there were no contaminated soils in the percolation areas. Additional contaminated soils were found at the pump station site, as well as the areas for the electrical conduit run to the pump station and the brine box.
- In preparing to replace the electrical cable that runs from the pump station area to the ocean, it was discovered that two of the four transition fittings along the length of the intake pipeline have failed and need replacing. It is anticipated that two other transition fittings, one located in the beach and the other in the ocean, will also need replacing. The ocean work is scheduled to take place in early August. Work to expose the transition fitting in the beach has been approved by the Coastal Commission, but the work cannot take place until the work area is clear of the spawning Grunion.

The table below summarizes the costs for the remaining work:

Estimated Change Order for IDE Contract

<b>Item</b>	<b>Description</b>	<b>Change Order Costs</b>	<b>Change Order Allowance</b>
Remaining Change order			\$1,569,856
Additional Contaminated Soils	Additional Contaminated soils at the in Desal Facility, Pump Station and El Estero work area	\$1,900,000	
Transition Pieces	Replace four intake pipeline transition fittings (two are known to be damaged)	\$2,255,000	
Other Identified Items	Sewer lines, pressure testing, chemical tank rehab, sump repair, SCE costs	\$650,000	
Other Unidentified Items		\$500,000	
<b>Total</b>		<b>\$5,305,000</b>	
Anticipated amount needed			<b>\$3,735,144</b>

The increase in the contract for IDE was rounded up to \$3,750,000 based on the uncertainty of the potential change order items.

With the contaminated soils delay, the original completion date of mid-October, was changed to the beginning of November. However, because of the unknown conditions noted above, the project completion date could be delayed to January 2017, meaning water production from the Desal Facility may not be available until the end December.

In addition to the increase in the contract for IDE, staff is recommending a \$125,000 increase in the contract with Carollo Engineers, who are providing owner-support services for the City on the project. While extra funds were obtained with the original contaminated soils delay, the extra work described above has required unanticipated permit review, inspections, schedule analysis and administrative duties.

Additional funds of \$75,000 are also recommended for engineering staff time. No additional funds were obtained with the original contaminated soils delay. The unanticipated work has required additional environmental work, preparation for Architectural Board of Review, and change order review and administrative duties.

**BUDGET/FINANCIAL INFORMATION:**

The following summarizes the additional expenditures recommended in this report:

**CONSTRUCTION CONTRACT FUNDING SUMMARY FOR IDE**

	<b>Base Contract</b>	<b>Previous Change Order (including increases)</b>	<b>Proposed Change Order</b>	<b>Total</b>
IDE	\$43,437,234	\$4,164,420	\$3,750,000	<b>\$51,351,654</b>
Carollo	\$2,032,622	\$266,160	\$125,000	<b>\$2,423,782</b>
Staff	\$255,739	\$0	\$75,000	<b>\$330,739</b>

Once the need for additional water and/or negotiations with the Montecito Water District have concluded, staff will work with the State Water Resources Control Board to increase the State Revolving Fund Loan to cover these additional costs. Initial discussions about increasing the amount of the loan have been favorable. If the State loan cannot be increased, there are sufficient reserve funds in the Water Fund to cover the increased costs.

**PREPARED BY:** Brian D'Amour, P.E., City Engineer/LS/kts  
**SUBMITTED BY:** Rebecca J. Bjork, Public Works Director  
**APPROVED BY:** City Administrator's Office