



Agenda Item No. _____

File Code No. _____

CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: June 16, 2015

Item 9

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Award Of Contract For The Charles E. Meyer Desalination Plant - Final Design Phase

RECOMMENDATION: That Council:

- A. Appropriate \$3,755,844 from the Water Fund reserves for the transfer to the Water Drought Fund for reactivation of the Charles E. Meyer Desalination Plant;
- B. Authorize the Public Works Director to execute a contract with IDE Americas, Inc. in the amount of \$1,320,000 for the planning phase of the design/build/operate project for the Charles E. Meyer Desalination Plant;
- C. Authorize the Public Works Director to execute a contract with Carollo Engineers in the amount of \$2,032,622 for owner support services, and approve expenditures of up to \$203,262 for extra services of Carollo Engineers that may result from necessary changes in the scope of work;
- D. Adopt, by reading of title only, A Resolution of the Council of the City of Santa Barbara Replacing Resolution No. 15-017 Stating the City's Intent to Reimburse Expenditures Paid Prior to Either the Issuance of Obligations or the Approval by the State Water Resources Control Board of the Project Funds for Reactivation of the Charles E. Meyer Desalination Plant; and
- E. Adopt, by reading of title only, A Resolution of the Council of the City of Santa Barbara, Approving an Addendum to the 1991 Environmental Impact Report (State Clearinghouse No. 9010859) and 1994 Environmental Impact Report (State Clearing House No. 91121020) in Support of the Charles E. Meyer Desalination Plant in Santa Barbara, California.

EXECUTIVE SUMMARY:

The City's 2011 Long Term Water Supply Plan (LTWSP) included the Charles E. Meyer Desalination Plant (Desal Plant), which was completed in March 1992, and put into long-term standby mode in 1997. The Desal Plant 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, staff are recommending

that Council reactivate the Desal Plant, to ensure that the community continues to have sufficient uninterrupted drinking water supplies should drought conditions continue through 2016.

While the near-term trigger for reactivating the Desal Plant is the current drought situation, there are long-term risks to the reliability of the City's current water supplies that will need to be considered after the drought, (in regards future operations of the Desal Plant or other alternatives). These include declining groundwater levels resulting from increased pumping during drought, reduced surface water storage capacity due to sedimentation, potential reduced Cachuma water supply due to environmental requirements, and potential risks due to climate change. The current drought has been drier than the previous drought of record; triggering the need to re-assess drought supply yields outlined in the currently adopted 2011 Long Term Water Supply Plan. In addition, consideration should be given to future use of the Desal Plant or other alternatives to augment drinking water supplies from local groundwater supplies, in the event that surface water supply from the Santa Ynez River is interrupted.

Recommendation "B" authorizes a contract for continued work on the final design phase only as part of the design/build/operate contract. Staff will return to Council for the acceptance of a State Revolving Fund (SRF) loan and the award of the full final design/build/operate contract once the loan has been approved. Awarding this limited notice to proceed contract is critical to being able to keep the Desal Plant reactivation on schedule for completion in fall 2016.

DISCUSSION:

Project Status Update

On May 6, 2014, Council authorized staff to enter into a contract with Carollo Engineers for preliminary design services for the recommissioning of the Desal Plant. The preliminary design included a study phase to study capacity, define permit and regulatory requirements, provide a reactivation plan based on a detailed Desal Plant inspection, provide a cost estimate and project delivery schedule, and the development of contract documents and qualification of contractors to perform design/build/operate services for the Desal Plant.

Based on this preliminary design work, staff issued a Request for Qualifications in September 2014, and received five proposals. Through a qualification-based selection process, staff narrowed the list to three firms and asked those firms to submit proposals for the design/build/operate phase for the Desal Plant.

On March 5, 2015, staff received written proposals for the project from IDE Americas, Inc. (IDE) and Acciona Agua Corporation (Acciona). The third firm, AECOM, declined to submit a proposal. A diverse six-person selection panel reviewed and rated the proposals, and conducted interviews with each firm. Cost proposals were submitted separately and remained confidential to the selection team until the written proposals

had been evaluated. Following the final rating by the selection team, the cost proposals were opened and the two scores combined for a final rating.

Both proposals were very competitive, but IDE was judged to have the superior proposal.

RFP Category	Acciona	IDE
Part 1 – Project Plan	84	87
Part 2 – Technical Design Approach	245	248
Part 3 – Construction Schedule, Planning, Sequencing	79	91
Part 4 – Operations Maintenance	89	83
Part 5 – Price Proposal	394	400
TOTAL	891	909

The selection panel felt that the modular plan submitted by IDE was more closely aligned with the existing permits to operate the plant and the tight timeframe for producing water.

The City has also been pursuing a SRF loan through the Division of Drinking Water (DDW) of the State Water Resources Control Board. The loan application was submitted in December 2014, and staff has been working with the DDW to finalize all required documentation.

To date, the City has cleared all review except that completed by agencies outside the DDW. Staff is reviewing the final installment sales agreement, and the SRF contract with the DDW, and hopes to finalize the agreement and contract shortly. Once all documents are finalized, staff will return to Council to accept the loan.

Staff recommends that Council authorize a Professional Services Agreement with IDE to start the final design phase of the design/build/operate contract while funding via the SRF is finalized. This is necessary so that water can be produced by fall 2016, the current forecasted date for critical water needs. Work completed during this phase would include cost and schedule management, utility coordination, finalization of permitting, establishing design criteria, development of equipment specifications, development of site civil work plans, and structural, mechanical, and electrical layouts. No on-site work will be conducted and no equipment will be ordered during this phase. IDE has given the City a schedule, which shows there is sufficient design work through mid-August before delays in award of construction funding would start to impact their delivery schedule of September, 2016.

Once the SRF loan is approved, staff will return to Council to amend the contract with IDE for the full cost of the design/build/operate project.

Cost

At the March 10, 2015, Water Rate Hearing, staff reported to Council that the Water Fund financial plan was based on an assumed capital cost of \$40 million, financed with a 10-year loan at 6 percent interest, resulting in an assumed debt service of \$5.3 million per year. Furthermore, operational costs were estimated at \$5.2 million per year, with \$2.5 million per year for standby condition. In summary, the rates reflected the need for \$10.5 million per year for initial operation and \$7.8 million per year in standby. For Fiscal Year 2016, the rate plan assumed only capital costs for the Desal Plant. Operational and debt service costs were assumed to begin in Fiscal Year 2017.

	Preliminary Design	With IDE Proposal
Design/Architectural/Engineering/Planning	\$7,385,000	\$8,643,831
Construction Costs	\$29,577,200	\$38,537,865
Engineering/Admin during Construction	\$1,845,000	\$2,243,884
Legal and Other Costs	\$615,000	\$825,000
NPDES Permitting Fees – Intake and Potable Reuse Study and contribution		\$3,221,651
TOTAL PRELIMINARY DESIGN AND PERMITTING COSTS	\$39,422,200	\$53,664,231

Based on the final negotiated proposal from IDE and the SRF loan terms, the actual debt service is estimated based on a capital cost of \$55 million, financed with a 20-year loan at 1.66 percent interest. As seen in the above table, the increased cost is mainly in the construction cost and additional studies that are part of the permits required for the Desal Plant. A loan for \$55 million will have a debt service of \$3.2 million per year, which is \$2.1 million less than originally planned. Furthermore, operational costs are estimated to be \$4.2 million per year, which is \$1 million less than originally planned. Standby operational costs are estimated to be \$1.5 million per year, which is \$1 million less than originally planned. In summary, the costs during operations came in at \$7.8 million per year, which is \$3.1 million less than planned.

As stated during project cost discussions with Council, the \$40 million estimate was based on Carollo's best understanding of how the Desal Plant might be reactivated. Both firms chose to replace more equipment than Carollo had estimated, yielding a higher upfront capital cost but with a lower operational cost and much higher energy efficiency. IDE's proposed plant will use 40 percent less energy than the previous plant. IDE's proposal guarantees the energy usage will not exceed 4,412 Kilowatts per Acre Foot (kwh/AF). Carollo's estimate based on reuse of more of the existing equipment was 5,307 kwh/AF. The original plant used 7,393 kwh/AF. The decision to replace more

equipment increases initial capital costs but also increases water production reliability, reduces risks, improves energy efficiency, and yields a lower, long-term cost of ownership.

Other Work

Staff recommends that Council authorize the Public Works Director to enter into a contract with Carollo Engineers for the management of the design/build/operate contract. Carollo was selected by a RFP process to complete the preliminary design for the Desal Plant. The scope of work for Carollo as the owner's representative during the "design" of the project includes participation in design meetings and review of design submittals, coordination of permits including building permits, and review of construction plans. Staff needs to award this contract in order to review work to be completed by IDE during the design phase noted above.

During the "build" phase of the contract, Carollo will provide construction oversight, review and respond to submittals, requests for information, and change order requests, monitor budget and schedule, provide inspection, and participate in the start-up of the Desal Plant. Carollo will also provide operational support which includes review of the operational plan, asset evaluation, and management plans for the Desal Plant as well as assist with payment requests, operational events, contract requirements, and monthly reporting for one year of operation.

ENVIRONMENTAL:

California Environmental Quality Act (CEQA) Addendum

The City has prepared a CEQA Addendum for the project to review the impacts of the project and found that the reactivation of the Desal Plant would not result in substantial changes in environmental effects beyond those that were experienced during operation of the plant in the 1990's.

Two Environmental Impact Reports (EIR's) were previously prepared for the Desal Plant. The first was prepared in 1991, and analyzed the construction and operation of the plant as a temporary five-year project. Because the life-cycle of the Desal Plant was approximately 25 years, the City decided to convert the approvals for the Desal Plant to a permanent status. The environmental effects of the permanent operation were analyzed and certified in 1994, as part of the LTWSP EIR. The LTWSP was updated in 2011, and addressed plant reactivation and provided estimates for energy use, capital, and operational costs. As part of the adoption of the 2011 LTWSP, the City issued a CEQA Notice of Exemption which concluded that the reactivation of the Desal Plant would not result in substantial changes in environmental effects beyond those previously analyzed. In addition, the City's 2011 General Plan EIR, certified in September 2010, included substantial discussion and specific details regarding the reactivation of the Desal Plant as a permanent part of the City's water supply.

The previous EIRs were provided for Council's review and consideration on April 13, 2015. Staff asks that Council, approve the CEQA addendum.

FUNDING:

Funding Resolution

On March 24, 2015, Council approved a resolution to pledge Water Fund net revenue as payment for the SRF loan. At the time the resolution was adopted, the total cost of the Desal Plant was estimated to be \$40 million dollars. As shown below, and discussed above, proposals came in higher than anticipated, and other costs, such as the subsurface intake feasibility study, have accrued to the project scope. The overall cost of the project is now estimated to be closer to \$55 million dollars. The resolution needs to be readopted with the increased costs included.

BUDGET/FINANCIAL INFORMATION:

The following summarizes the costs for the actions recommended by staff:

ESTIMATED TOTAL DESIGN/BUILD COSTS

COSTS FOR CURRENT RECOMMENDATIONS

	Basic Contract	Change Funds	Total
IDE	\$1,320,000	\$0	\$1,320,000
Carollo	\$2,032,622	\$203,262	\$2,235,884
City Staff Time	\$200,000		\$200,000
TOTAL			\$3,755,844

Funds for the award of the recommendations will come from Water Fund reserves. Once the SRF loan is finalized and accepted by the City, costs incurred to date will be submitted for reimbursement, and the Water Fund Reserves will be reimbursed.

On April 7, 2015, Council adopted the Fiscal Year (FY) 2016 water rates, which assumed a budget of \$5.3 million in FY 2016 for the capital costs of the Desal Plant project. These capital costs are now being rolled into the SRF loan, with the exception of approximately \$600,000 of anticipated interest payments in FY 2016. While the FY 2016 expenditures for the Desal Plant have been significantly reduced, water rates that were adopted on April 7, 2015, will need to remain in place for FY 2016. Staff has worked with our rate consultant, Raftelis, to update the Water Fund financial plan and rate model based on actual cost of desalination, reduced water sales based on an increased conservation target of 25 percent, and most recent information on projected FY 2015 end of year reserves and the FY 2016 budget. Given all these changes, the rate consultant has confirmed that the adopted rates are adequate for FY 2016. However, there are variables that could affect FY 2017 rates, particularly if conservation exceeds 25 percent creating a revenue shortfall. Staff will present an updated financial plan, as well as ways to make up a revenue shortfall in order to offset potential FY 2017

rate impacts. These include grant awards, possible savings in the Drought Fund from groundwater development and water purchases, and postponement of Water Fund capital projects. Under Proposition 1, there has been money set aside for desalination projects. The City is planning to aggressively pursue this money once the framework for applying has been established.

At its meeting on June 8, 2015, the Water Commission voted **X/X** in support of staff recommendations.

PREPARED BY: Joshua Haggmark, Water Resources Manager/LS/kts

SUBMITTED BY: Rebecca J. Bjork, Public Works Director

APPROVED BY: City Administrator's Office