



## STAFF REPORT TO THE CITY COUNCIL

**DATE:** Regular Meeting of January 26, 2016

**TO:** Honorable Mayor and Members of the City Council

**SUBMITTED BY:** Scott Buenting, Associate Engineer, Capital Improvements Division *SB*

**APPROVED BY:** Ron Bernal, Public Works Director/City Engineer *ROB*

**SUBJECT:** Resolution Authorizing the Filing of a Financial Assistance Application with the State Water Resources Control Board for a Drinking Water State Revolving Fund Loan up to \$1,000,000 for the Brackish Water Desalination Project (P.W. 694)

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### **RECOMMENDED ACTION**

It is recommended that the City Council adopt the attached Resolution and Authorize the City Manager to file a loan application with the State Water Resources Control Board for a Drinking Water State Revolving Fund Loan up to \$1,000,000 for the Brackish Water Desalination Project.

### **STRATEGIC PURPOSE**

This item supports Strategy K-1 in the Strategic Plan by ensuring well maintained public facilities and Strategy K-2 by protecting Antioch's Water Rights and delivering high quality water to our customers and exploring the feasibility of desalinization. By investigating and pursuing alternative potable water sources, especially in times of severe drought and to improve treated water reliability, this project is an important part of maintaining a highly functioning and reliable water system.

### **FISCAL IMPACT**

The cost of the loan application is included in an existing contract with Carollo Engineers. The current interest rate on a Drinking Water State Revolving Fund Loan (DWSFL) is 1.663% with a repayment term of five (5) years. This low interest rate is equivalent to receiving grant funding up to 30% of the loan amount. The loan will be used on an as-needed basis and the City can cease withdrawing funds at anytime. The cost of loan repayment may be included into future Water Enterprise Fund budgets.

### **DISCUSSION**

As the purveyor of the Antioch water system, the City treats and distributes raw water obtained from two sources; the San Joaquin River and the Contra Costa Canal. The City's ability to divert water from the San Joaquin River is dependent upon the concentration of chlorides in the water. During dry years, as we are currently experiencing, the chloride levels in the river exceed that which is currently treatable at the Water Treatment Plant and therefore prohibit the City from obtaining water from the river. At these times, the City relies solely upon the Contra Costa Water District through the Contra Costa Canal for our raw water.

With pre-1914 adjudicated water rights to divert water for the needs of Antioch from the San Joaquin River, the City is in a unique and fortunate position of being able to pursue alternative means for treating water with high chloride levels. This process is often referred to as desalination, and involves removing chlorides from the water through membranes and disposing of the highly concentrated waste called "brine." The term desalination is actually more accurately used for ocean water that has very high chloride content. The chloride levels in the San Joaquin River are up to 100 times lower than that of ocean water; therefore the water is considered brackish. Chloride removal from brackish water involves a similar process, but at a greatly reduced level of effort and cost.

On August 11, 2015 the City Council awarded a contract to Carollo Engineers to perform initial planning study of a brackish water treatment facility. This study identified grant opportunities, such as the Department of Water Resources Desalinization Funding program and the State Water Resources Control Board Low Interest Loan program. Funding of more of these programs is expected to be released in the near future, which could provide project funding for permitting and environmental activities. Additional work provided analysis of various brine disposal options. This identified potential brine disposal possibilities, including discharge locations and treatment techniques. A preliminary environmental permitting review concluded that the City's current water intake meets current California Department of Fish and Wildlife requirements.

Based on the promising findings of the initial planning study, Staff recommends applying for a low interest loan through the DWSFL program to fund the next phase of planning, engineering, and environmental certification of a brackish water treatment facility. The initial phase of this work would entail identifying and modeling all necessary project facilities. Costs for project construction and facility operations will be estimated and various project delivery approaches will be analyzed. Following this work, the project will be reevaluated to confirm continued viability prior to moving forward with the development of an Environmental Impact Report (EIR). This document will be in compliance with NEPA and/or CEQA, as necessary to support all funding sources. Based on the findings of the EIR, the appropriate regulatory agencies will be engaged and the required project permits could be obtained.

#### **ATTACHMENTS**

A: Authorizing Resolution



**ATTACHMENT "A"**

**RESOLUTION NO. 2016/\*\***

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ANTIOCH  
AUTHORIZING THE FILING OF A FINANCIAL ASSISTANCE APPLICATION WITH THE  
STATE WATER RESOURCES CONTROL BOARD FOR A DRINKING WATER STATE  
REVOLVING FUND LOAN UP TO \$1,000,000 FOR THE BRACKISH WATER  
DESALINATION PROJECT  
(P.W. 694)**

**WHEREAS**, the State of California has established a State Revolving Fund (SRF) loan and grant program for providing financial assistance to public agencies for the planning, design, and construction of publicly owned community water systems; and

**WHEREAS**, the City Council of the City of Antioch (City) seeks financing from the State Water Resources Control Board under the Drinking Water SRF up to \$1,000,000 for the Brackish Water Desalination Project (Project); and

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ANTIOCH (Entity), AS FOLLOWS:**

The City Manager (Authorized Representative) or designee is hereby authorized and directed to sign and file, for and on behalf of the Entity, a Financial Assistance Application for a financing agreement from the State Water Resources Control Board for the planning of the Project.

This Authorized Representative or his/her designee, is designated to provide assurances, certifications, and commitments required for the financial assistance application, including executing a financial assistance agreement from the State Water Resources Control Board and any amendments or changes thereto.

The Authorized Representative or his/her designee, is designated to represent the Entity in carrying out the Entity's responsibilities under the financing agreement, including certifying disbursement requests on behalf of the Entity and compliance with applicable state and federal laws.

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**I DO HEREBY CERTIFY** that the foregoing is a full, true and correct copy of a resolution duly and regularly adopted by the City Council of the City of Antioch at a regular meeting thereof held on the 26<sup>th</sup> day of January, 2016 by the following vote:

**AYES:**

**NOES:**

**ABSENT:**

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**ARNE SIMONSEN  
CITY CLERK OF THE CITY OF ANTIOCH**