



STAFF REPORT TO THE CITY COUNCIL

DATE: Regular Meeting of June 26, 2018

TO: Honorable Mayor and Members of the City Council

SUBMITTED BY: Scott Buenting, Project Manager *SB*

APPROVED BY: Jon Blank, Public Works Director/City Engineer *JB*

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 \$55,000,000 for the Brackish Water Desalination Project (P.W. 694)

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 \$55,000,000 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. By 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 (DWSRF) is 1.8% with a repayment term of up to 30 years. The loan will be used for design and construction of the project on an as-needed basis and the City can cease withdrawing funds at any time. 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.

The City has utilized \$1,000,000 from State Water Resources Control Board (SWRCB) Drinking Water State Revolving Fund (DWSRF) Loan program to identify grant opportunities and perform initial planning, engineering, and environmental certification of a brackish water treatment facility. A proposed location and layout of a brackish water desalination facility has been established within the footprint of the City's existing Water Treatment Plant (WTP). An area on the southern end of the plant appears suitable for the construction of a 6 million gallons per day (MGD), reverse osmosis, brackish water desalination facility with available area to expand the facility to 16 MGD if regional partnerships are developed. This setting would allow the brackish water desalination facility to utilize portions of the existing WTP for pretreatment. The installation of a new pipeline segment that would connect the City's River Pump pipeline on Lone Tree Way to the WTP provides a cost effective means of conveying raw water to the new facility. A brine disposal pipeline within existing City rights of way is contemplated from the WTP to Delta Diablo located off of the Antioch/Pittsburg Highway. The brine could be discharged through the existing Delta Diablo outfall.

On July 25, 2017, the City Council authorized the City Manager to submit an application to the California Department of Water Resources for grant funding up to \$10,000,000 for the design and construction of the Brackish Water Desalination project from the Proposition 1 Water Desalination Grant Program. In March 2018, the City was conditionally awarded this grant in the amount of \$10,000,000.

Staff recommends applying for a low interest loan through the DWSRF program in the amount of \$55,000,000 to fund the next phase of design and construction of a brackish water treatment facility. The loan will be used on an as-needed basis and the City can cease withdrawing funds at any time.

ATTACHMENTS

A: Authorizing Resolution

ATTACHMENT "A"

RESOLUTION NO. 2018/**

**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 \$55,000,000 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 \$55,000,000 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 26th day of June, 2018 by the following vote:

AYES:

NOES:

ABSENT:

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