

*1. Administrative Details*

**Proposal Name: Pure Water Program**

**by Agency: City of San Diego**

**Locations: CA**

**Date Submitted: 09/23/2015**

**Confirmation Number: 4b653226-fd49-4bc8-a9a1-11fc4d62ec69**

*Supporting Documents*

<b>File Name</b>	<b>Date Uploaded</b>
US Army Corps of Engineering-Future Water Resources Dev 9 23 15.pdf	09/23/2015

**2. Provide the name of the primary sponsor and all non-Federal interests that have contributed or are expected to contribute toward the non-Federal share of the proposed feasibility study or modification.**

Sponsor	Letter of Support
City of San Diego(Primary)	The City of San Diego fully supports the Pure Water Program. We acknowledge this project is of paramount importance for the citizens of San Diego and surrounding communities. This project is expected to indirectly and directly improve state and federal infrastructure.

**3. State if this proposal is for a feasibility study, a modification to an authorized USACE feasibility study or a modification to an authorized USACE project. If it is a proposal for a modification, provide the authorized water resources development feasibility study or project name.**

Feasibility Study

***4. Clearly articulate the specific project purpose(s) of the proposed study or modification. Demonstrate that the proposal is related to USACE mission and authorities and specifically address why additional or new authorization is needed.***

The City of San Diego initiated a Recycled Water Study to evaluate water reuse and the region's water and wastewater infrastructure. The region's 3.1 million residents have received a majority of their water supply from imported sources, including the California Bay-Delta and the Colorado Rivers. Currently, 80 percent of the San Diego region's water supply is imported, local supplies and conservation account for the remaining 20 percent. The region's reliance on imported water causes San Diego's water supply to be vulnerable to impacts from shortages and susceptible to price increases.

Water supplied from the Bay-Delta was restricted in 2008 to protect endangered fish species. In addition, drought conditions in Southern California further impacted water supply availability. With the region's population projected to reach 3.9 million people by 2030, demands will increase and strain these limited water supplies. In 2010, the United States (U.S.) Environmental Protection Agency (EPA) approved the City's permit application for the Point Loma Wastewater Treatment Plant as a chemically enhanced primary treatment facility under a modification to its National Pollutant Discharge Elimination System (NPDES) Permit. The 2010 permit allows the City to operate in this fashion for five years until 2015, when the permit must be renewed. The City has since submitted an application for a modified permit for another five years. During the 2008-2010 permit modification process, two environmental organizations entered into a Cooperative Agreement with the City to conduct this Recycled Water Study. In accordance with the Cooperative Agreement, both of these organizations provided their support to the U.S. EPA's decision to grant the modification. The City's responsibility per the Cooperative Agreement is to execute this Study, which is also consistent with the City's long-term goals and objectives.

5. To the extent practicable, provide an estimate of the total cost, and the Federal and non-Federal share of those costs, of the proposed study and, separately, an estimate of the cost of construction or modification.

	Federal	Non-Federal	Total
<b>Study</b>	\$250,000	\$250,000	\$500,000
<b>Construction</b>	\$2,700,000,000	\$0	\$2,700,000,000

**Explanation (if necessary)**

Water reuse programs provide valuable water supplies by using resources that otherwise are sent to the ocean. The decisions to invest in a water reuse program, or alternative large-scale wastewater system upgrades, will affect the rates, reliability, and regional assets for decades. The fundamental focus of this study was to develop water reuse alternatives and then weigh the alternatives against other options – with particular focus on the water supply benefits and the cost savings through reduced wastewater systems operations and improvements. A preliminary construction cost estimate of the reuse elements of this project is estimated at \$2.7 billion. The Feasibility Study is estimated to cost \$500,000 for all associated activities. The City is hoping the Federal and non-Federal share of these costs will meet the need.

***6. To the extent practicable, describe the anticipated monetary and nonmonetary benefits of the proposal including benefits to the protection of human life and property; improvement to transportation; the national economy; the environment; or the national security interests of the United States.***

Four (4) Measures that Established the Water Reuse Target Benefits: 1) Value of Water. Reliable water supplies are needed for San Diego. Water reuse projects produce high-quality, reliable, uninterrupted local water to the region. Savings would likely increase further if the regulatory framework for Direct Potable Reuse is finalized, allowing direct delivery to the region's potable water treatment plant, especially when reduced capital and operating costs at these plants. 2) Water Quality. Reuse can improve the ocean water quality. Indirect potable reuse can significantly reduce salinity levels benefiting ratepayers. Water reuse target: ocean water quality and imported water salinity. Both are important, and both would be significantly improved through implementation of the water reuse projects identified in this USACE Study. For example, blending advanced purified water with imported water in San Vicente Reservoir and Otay Lakes could reduce salinity levels by 50 percent. 3) Project Size vs. Costs. Water reuse targets should be based on project sizing that considers costs and regulatory limits. 4) Reuse Program Induced Savings. The water reuse program should reduce capital and operating costs in the drinking water and wastewater systems. San Diego has the potential to create a valuable new water supply cost effectively due to the reuse program's benefit of reducing capital and operating costs.

**7. Does local support exist? If 'Yes', describe the local support for the proposal.**

Yes

### **Local Support Description**

The citizens of San Diego continue to participate and support this project and include the following groups: Environmental Groups San Diego Coastkeeper, Surfrider Foundation, San Diego Chapter Oversight Groups Independent Rates Oversight Committee (IROC), Regional Water Supplies San Diego County Water Authority (SDCWA) Participating Agency Members City of Chula Vista, City of Coronado, City of Del Mar, City of El Cajon, City of Imperial Beach, City of La Mesa, City of National City, City of Poway, Lemon Grove Sanitation District, Otay Water District, Padre Dam Municipal Water District, San Diego County Sanitation District, Alpine Sanitation District, Lakeside Sanitation District, Spring Valley Sanitation District, Winter Gardens Sewer Maintenance District.

**8. Does the primary sponsor named in (2.) above have the financial ability to provide for the required cost share?**

Yes

# Primary Sponsor Letter of Support

(As uploaded)

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## THE CITY OF SAN DIEGO

September 23, 2015

US Army Corps of Engineers  
441G Street NW.  
Washington, DC 20314-1000

To Whom It May Concern:

Subject: City of San Diego, Pure Water Program

Pursuant to your request for candidates from non-Federal interests to be included in the 2016 U.S. Army Corps of Engineers Annual Report to Congress on Future Water Resources Development, I hereby provide this letter of support for the inclusion of the Pure Water Program. The City of San Diego (City) is pleased to submit a request for proposals under Section 7001 of the Water Resources Reform and Redevelopment Act of 2014 (WRRDA).

The City and the Pure Water Working Group, supports the attached request for a feasibility evaluation, design, permitting and construction of the referenced project. The City formed the "Pure Water Working Group" to provide diverse viewpoints and input on the City's efforts to provide a safe, reliable and cost-effective drinking water supply for San Diego. This diverse group of stakeholders includes representatives from community planning, businesses, city council district offices, non-profit environmental organizations, and community leaders. The Working Group serves as stakeholders who represent the Public Utilities Department's customers and broad community interests. The City also engaged the National Water Research Institute of Fountain Valley, California, and formed an Independent Advisory Panel (IAP) to provide expert peer review of the Water Purification Demonstration Project; IAP also pledges their full support of this program.

Pure Water San Diego is the City's phased, multi-year program to produce purified water to supplement San Diego's drinking water supply. The City is addressing the need for a new locally controlled, drought-proof water supply. The City currently depends on importing 85 percent of its water from Northern California and the Colorado River. A Water Reuse Study, Recycled Water Study and Water Purification Demonstration Project determined that it is feasible for San Diego to use water purification technology to produce one-third of San Diego's drinking water supply locally by 2035.

Public Utilities Department  
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US Army Corps of Engineers  
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We look forward to a partnership with the USACE to begin the process of documenting and recommending long-term improvements to water resources which greatly impact health, safety and environmental issues facing several surrounding communities.

Sincerely,



Halla Razak  
Director of Public Utilities