


DEPARTMENT OF PUBLIC WORKS

Bureau of Sanitation
Board Report No. 2
January 6, 2016

ADOPTED BY THE BOARD
PUBLIC WORKS OF THE CITY
of Los Angeles California
AND REFERRED TO THE MAYOR
JAN - 6 2016
AND REFERRED TO THE CITY COUNCIL

Executive Officer
Board of Public Works

CD: 2

AUTHORITY TO APPLY FOR, ACCEPT, NEGOTIATE, AND EXECUTE AN AGREEMENT, AND ADOPT THE ATTACHED RESOLUTION FOR GRANT FUNDING FROM THE WATERREUSE RESEARCH FOUNDATION UNDER THE 2015 TAILORED COLLABORATION RESEARCH PROGRAM

RECOMMENDATIONS

1. Approve and forward this report with its transmittal, to the Mayor and the City Council, with the recommendation that the City Council, subject to the approval of the Mayor, authorize the Director of the Bureau of Sanitation (LASAN), or designee, to apply for, accept, negotiate, execute and submit all grant documents, including but not limited to, applications, agreements, and amendments, subject to the approval of the City Attorney as to form, which may be necessary to receive funding from the WaterReuse Research Foundation (WRRF) for the N-nitrosodimethylamine (NDMA) Precursor Strategies for Direct Potable Reuse (DPR) Project not to exceed the amount of \$120,000.
2. Request the City Council, subject to the approval of the Mayor, adopt the accompanying Resolution, authorizing and appointing the Director of LASAN or designee to conduct all negotiations, execute and submit all documents including, but not limited to applications, agreements, amendments, payment requests, etc., which may be necessary to carry out the purpose of this resolution in compliance to complete the project.

FISCAL IMPACT STATEMENT

There will be no direct impact to the General Fund.

TRANSMITTALS

1. Resolution
2. The WaterReuse Foundation Grant Acceptance Letter.

DISCUSSION

On January 6, WRRF requested pre-proposals for funding consideration under its 2015 Tailored Collaboration (TC) Research Program. The total amount of funds approved for WRRF 2015 TC Research Program projects is \$480,000. WRRF anticipated funding a minimum of four (4) projects with a maximum funding level for any single project of \$120,000.

On April 2, 2015, (LASAN) submitted a proposal of \$120,000 for the NDMA Precursor Control Strategies for DPR Project (Project) to WRRF's - Research Program. The proposal consists of a grant amount of \$120,000 and required match of \$120,000. The required match of \$120,000 will be in-kind contribution and is part of the work that is currently being performed, under the Donald C. Tillman Water Reclamation Plant Advanced Water Purification Facility Pilot Project.

LASAN will be responsible for implementing a comprehensive pilot test program to compare and evaluate the performance of current full advanced treatment process components (e.g. microfiltration, reverse osmosis (RO), and ultraviolet light advanced oxidation process) to alternative DPR treatment trains. LASAN will be supported by Dr. William Mitch from Stanford University, Dr. Shane Snyder from the University of Arizona, and recognized industry experts, Dr. James Bernard from Black & Veach for the proposed WRRF Project.

LASAN is proposing to investigate the fate and transport of NDMA precursors through alternative DPR treatment trains and to develop control strategies to minimize the presence of NDMA precursors and NDMA formation for DPR. Key objectives of the proposed research are to:

- Quantify presence and source of NDMA and NDMA precursors in the raw wastewater (e.g. domestic or industrial wastewater) and contributions within the DPR treatment train
- Evaluate operating conditions (e.g. polymer addition and solid retention times) to optimize NDMA precursor removal during secondary treatment (biological N-removal Modified Ludzack-Etinger) and its impact on downstream DPR treatment processes
- Compare fate and transport of NDMA and NDMA precursors between Full Advance Treatment (FAT) and alternative DPR treatment trains without RO
- Quantify NDMA reformation potential under DPR scenarios where the purified water is either sent directly into the water distribution system or blended with other potable water supplies

On May 14, 2015, WRRF's Committee and the Board of Directors recommended to accept LASAN's proposal submitted on April 2, 2015. Final award of the Project is dependent on a contractual agreement acceptable by LASAN and WRRF. City policy requires LASAN to receive authority from the City Council and the Mayor to accept and execute the grant agreement.

WRRF is an educational, nonprofit public benefit corporation that serves as a centralized organization for the water and wastewater community to advance the science of water reuse, recycling, reclamation, and desalination. WRRF's research covers a broad spectrum of issues, including chemical contaminants, microbiological agents, treatment technologies, salinity management, public perception, economics, and marketing.

STATUS OF FINANCING

There is no impact to the General Fund. The total funding for this project is not to exceed \$120,000. Funding in the amount of \$120,000 will be provided from the Sewer Operations and Maintenance Fund. Grant proceeds will reimburse the Sewer Operations and Maintenance Fund.

Respectfully submitted,



ENRIQUE C. ZALDIVAR, Director
Bureau of Sanitation

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