



## Agenda Report Details (With Text)

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**Title:** SUPERCRITICAL WATER OXIDATION DEMONSTRATION AT PLANT NO. 1, PROJECT NO. RE21-01  
**Sponsors:** Kathy Millea  
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**Attachments:** 1. Agenda Report, 2. RE21-01 Construction Contract

Date	Ver.	Action By	Action	Result
12/15/2022	1	BOARD OF DIRECTORS		

**FROM:** James D. Herberg, General Manager  
Originator: Kathy Millea, Director of Engineering

**SUBJECT:**

**SUPERCRITICAL WATER OXIDATION DEMONSTRATION AT PLANT NO. 1, PROJECT NO. RE21-01**

**GENERAL MANAGER'S RECOMMENDATION**

RECOMMENDATION:

- A. Receive and file Bid Tabulation and Recommendation for Supercritical Water Oxidation Demonstration at Plant No. 1, Project No. RE21-01;
- B. Award a Construction Contract to Garney Pacific, Inc. for Supercritical Water Oxidation Demonstration at Plant No. 1, Project No. RE21-01, for a total amount not to exceed \$1,172,000;
- C. Approve a contingency of \$117,200 (10%); and
- D. Ratify that Supercritical Water Oxidation Demonstration at Plant No. 1, Project No. RE21-01 was previously approved and found to be exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations Section 15301 and staff filed a Notice of Exemption with the OC Clerk-Recorder on November 23, 2021.

**BACKGROUND**

The Orange County Sanitation District (OC San) collects and processes approximately 180 million

gallons of wastewater every day. Cleaning this water results in concentrated solids. In December of 2021 the Board approved a demonstration project for a new type of solids treatment technology called Supercritical Water Oxidation.

This recommended Construction Contract will install pads for the solids preprocessing module and Supercritical Water Oxidation module, install a temporary trailer to serve as a control center for the demonstration project, and install all necessary process connections and utilities.

## **RELEVANT STANDARDS**

- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsive, responsible bidder
- Provide technology leadership to the wastewater industry
- Search for technology solutions to neutralize constituents of emerging concern

## **PROBLEM**

In order to support the approved demonstration project, a plant site must be prepared to install the approved demonstration unit currently being manufactured. This necessary site preparation work is considered public works construction.

## **PROPOSED SOLUTION**

Award a Construction Contract for Supercritical Water Oxidation Demonstration at Plant No. 1, Project No. RE21-01 for the public works aspect of the approved demonstration project.

## **TIMING CONCERNS**

The research unit is currently being manufactured by 374Water and will be ready for shop testing in January 2023, with delivery shortly after.

## **RAMIFICATIONS OF NOT TAKING ACTION**

Not taking action will delay the installation of the research unit currently being manufactured by 374Water.

## **PRIOR COMMITTEE/BOARD ACTIONS**

December 2021 - Approved a Professional Services Agreement to 374Water Systems, Inc. for the Supercritical Water Oxidation Demonstration at Plant No. 1, Project No. RE21-01, to provide goods and services for demonstration of the 374Water AirSCWO Nix6 System, for an amount not to exceed \$5,139,000; and approved contingency funds for Project No. RE21-01 for a combined total not to exceed \$514,000 (10%).

## **ADDITIONAL INFORMATION**

OC San advertised Project No. RE21-01 for bids on September 29, 2022, and four sealed bids were received on November 8, 2022. A summary of the bid opening follows:

Engineer's Estimate	\$ 1,898,000
<u>Bidder</u>	<u>Amount of Bid</u>
Garney Pacific, Inc.	\$ 1,172,000
Innovative Construction Solutions	\$ 1,329,000
Metha Mechanical Company, Inc	\$ 1,654,000
Tharsos Inc.	\$ 1,916,678

The bids were evaluated in accordance with the OC San's policies and procedures. A notice was sent to all bidders on November 22, 2022 informing them of the intent of OC San staff to recommend award of the Construction Contract to Garney Pacific, Inc.

Staff recommends awarding a Construction Contract to the lowest responsive and responsible bidder, Garney Pacific, Inc., for a total amount not to exceed \$1,172,000.

### **CEQA**

The project is exempt from CEQA and a Notice of Exemption was filed with the OC Clerk-Recorder on November 23, 2021.

### **FINANCIAL CONSIDERATIONS**

This request complies with the authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2022-2023 and 2023-24, Section 8, Page 49, Research Program, Project No. M-RESEARCH) and the budget is sufficient for the recommended action.

### **ATTACHMENT**

*The following attachment(s) may be viewed on-line at the OC San website ([www.ocsan.gov](http://www.ocsan.gov)) with the complete agenda package:*

- Construction Contract