
File #: 2021-1883

Agenda Date: 11/10/2021

Agenda Item No: 3.

FROM: James D. Herberg, General Manager
Originator: Lan C. Wiborg, Director of Environmental Services

SUBJECT:

OCEAN MODELING SUPPORT PROJECT

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve Amendment extending the Agreement between the Orange County Sanitation District and Southern California Coastal Water Research Project regarding Ocean Outfall Plume Modeling, to provide physical and biogeochemical modeling of the Orange County Sanitation District's ocean discharge, at a cost not to exceed \$135,000, for a total amount not to exceed \$383,000;
- B. Approve a contingency of 13,500 (10%); and
- C. Approve an agreement performance period extension to December 31, 2024.

BACKGROUND

Under its ocean discharge permit and the California Ocean Plan, Orange County Sanitation District (OC San) is required to conduct Strategic Process Studies (SPS) that address critical areas of interest to OC San and its regulators and the public. One example is the change in discharge effluent quality and quantity as a result of the final expansion of the Ground Water Replenishment System (GWRS). In November 2018, a professional services agreement was awarded to the Southern California Coastal Water Research Project (SCCWRP) to conduct high-resolution modeling of our discharge before and after GWRS. This work supports required monitoring under our existing permit and will provide insights to future monitoring needs under future permits.

The OC San agreement leveraged existing SCCWRP Ocean Acidification and Hypoxia (OAH) modeling work being conducted for the entire California coast. One of the initial conclusions of the OAH modeling effort was the need to better understand the time-based variability seen in modeling runs. After thorough internal discussions and consultation with SCCWRP staff, OC San staff concluded that it is essential to better understand the potential distribution of our effluent in the ocean by looking at an expanded range of typical seasonal ocean conditions (Summer vs. Winter) as well as larger-scale, regional conditions (El Niño vs La Niña). The increase in funding is attributed to the additional model runs requested by OC San.

RELEVANT STANDARDS

- Ensure the public's money is wisely spent
- Sustain 1, 5, 20-year planning horizons
- Comply with environmental permit requirements
- Maintain collaborative and cooperative relationships with regulators, stakeholders, and neighboring communities

PROBLEM

OC San's ocean discharge permit mandates that we meet state and federal environmental criteria. Since OC San last modeled and characterized its discharge plume in the early 2000s, there have been significant changes that have not been included in the modeling.

PROPOSED SOLUTION

Conduct high-resolution modeling of OC San's ocean discharge to evaluate (1) changes in plume dispersion based on effluent quality/quantity alone and (2) changes in plume dispersion under varying ocean states.

The revised modeling runs will look at the following:

1. Model ability to determine changes due to expansion of GWRS and the resulting decrease in ocean discharge.
2. Model ability to determine changes due to varying ocean conditions (e.g., El Niño vs La Niña).

TIMING CONCERNS

The existing Board approved agreement with SCCWRP expired on September 30, 2021.

RAMIFICATIONS OF NOT TAKING ACTION

The modeling of OC San's ocean discharge as required by its ocean discharge permit may not accurately reflect changes caused by increased flows to GWRS and varying ocean conditions. Regulators would be relying on modeling of OC San's ocean discharge that does not include up-to-date effluent discharge characteristics and varying ocean conditions.

PRIOR COMMITTEE/BOARD ACTIONS

October 2018 - Approved a Service Agreement to the Southern California Coastal Water Research Project (SCCWRP) to provide physical and biogeochemical modeling of the Orange County Sanitation District's ocean discharge for the period of October 1, 2018 to September 30, 2021, for a total amount not to exceed \$248,000, in a form approved by General Counsel.

ADDITIONAL INFORMATION

N/A

CEQA

N/A

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted. (Line item: Section 6, Page 48). Project contingency funds will not be used for this amendment.

<u>Date of Approval</u>	<u>Contract Amount</u>	<u>Contingency</u>
10/24/2018	\$248,000	N/A
11/17/2021	\$135,000	\$13,500

ATTACHMENT

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

- Amendment to Agreement
- Original Agreement