



South Orange County Wastewater Authority

April 18, 2007

Mr. John H. Robertus
Executive Officer
SDRWQCB
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4353

2007 APR 20 P 2:10
SOUTH ORANGE COUNTY
WASTEWATER
QUALITY
CONTROL BOARD

Re: Complaint No. R9-2007-0035

Dear Mr. Robertus:

The South Orange County Wastewater Authority (SOCWA) has prepared the following Scope of Work for the San Diego Regional Water Quality Control Board's review. This Scope of Work is for a project SOCWA would perform as a Supplemental Environmental Project (SEP) related to the civil penalties issued in Complaint No. R9-2007-0035. The Scope of Work listed below is for services relative to providing a genetic finger printing of the outfall effluent. Upon approval of this project the South Orange County Wastewater Authority and the Southern California Coastal Water Research Project (SCCWRP) will enter into an agreement whereby SCCWRP will act as the Supplemental Environmental Project Trustee for the SJCOO effluent genetic finger printing study.

SCOPE OF WORK

The SJCOO effluent will be sampled each weekend as a potential source of contamination during the full course of the Doheny Epidemiology Study. Five gallons of outfall effluent would be collected each weekend between Memorial Day and Labor Day. The samples would be submitted to SCCWRP for genetic fingerprinting.

Deliverables:

This study would add the SJCOO to the Doheny Epidemiology Study. The Study as planned focuses on non-point sources of fecal contamination as the most likely cause of beach fecal contamination. The SEP deliverable is the inclusion of the SJCOO as a bacterial source in the Doheny Beach Epidemiology Study Report.

BUDGET

SOCWA will provide SCCWRP with \$25,500 to conduct the genetic finger printing analyses. SCCWRP will not expense any SEP money for overhead, project management, or project design for this study. Therefore the full amount of the allowable SEP monies will be expensed for sampling, water quality testing, data analyses, and report generation.

Task Description

The SCCWRP will conduct a genetic finger printing analysis of the outfall effluent which will include new rapid fecal indicator testing, virus monitoring, and bacteriophage analyses. The results of the outfall genetic finger printing will be compared to the contamination models found in the beach samples. An analysis of the data will be conducted to determine the possible sources of fecal contamination found in the beach samples. An epidemiology study will be conducted in relation to the fecal indicator testing to determine is to be conducted that will

Methods and Resources

The Southern California Coastal Water Research Project has vast experience conducting ocean water quality monitoring studies. SOCWA will rely on SCCWRP's professional judgment in matters related to methodology and resource use in completing the work related to this proposed project.

Regulatory Issues

SOCWA does not foresee any regulatory issues related to the completion of this proposed project. The physical act of collecting the outfall composite sample is a routine task that does not require environmental review or permitting.

Schedule

The effluent analysis will be conducted weekly between May 28, 2007 and September 3, 2007 to correspond with the Doheny Beach Epidemiology Study.

Work Products

The outfall effluent will be analyzed using conventional and rapid fecal indicator bacteria methods along with virus, bacteriophage, and other host specific indicators. The outfall effluent genetic markers will be established then compared with the sample results of five Doheny Beach locations to determine the probability of whether the effluent plume impacts the bathing beach. All of the sampling and water quality data related to the study will be maintained according to SCCWRP's standard protocol for data retention.

This represents the Scope of Work as it relates to our proposed Supplemental Environmental Project. SOCWA appreciates the opportunity to present this project as a possible Supplemental Environmental Project. If you have any questions please contact Mr. Brennon Flahive at (949) 234-5419.

Very truly yours,

South Orange County Wastewater Authority



Tom Rosales
General Manager

TR/bf

cc: Rebecca Stewart, SDRWQCB
File

CALIFORNIA REGIONAL WATER QUALITY CONTROL
BOARD
SAN DIEGO REGION
(SDRWQCB)

SUPPLEMENTAL ENVIRONMENTAL PROJECT APPLICATION FORM

Project Requested by South Orange County Wastewater Authority

Name of Project San Juan Creek Ocean Outfall Epidemiology Finger Printing

Date of Request March 1, 2007

Point of Contact Brennon Flahive

Phone (949)- 234-5419

E-mail bflahive@socwa.com

Project Summary: This project would provide an epidemiology finger printing of the South Orange County Wastewater Authority's San Juan Creek Ocean Outfall effluent during the period that the Southern California Coastal Water Research Project's conducts its Doheny Beach Epidemiological Study.

Total Life Cycle Cost for the Project:

Project Overhead/Management	\$ <u>0</u>
Design/Consultation	\$ <u>0</u>
Construction/Implementation	\$ <u>25,500</u>
Long Term Maintenance/Oversight	

Total Project Cost \$ 25,500

Watershed/Water Body/Location for Project (attach maps) Pacific Ocean in the vicinity of Dana Point Harbor and Doheny Beach

Project Proposed Start Date and Time Line

Testing between May 28, 2007 and August 3, 2007. Data analysis and final report July 1, 2008

Organization Sponsoring Project (tax I.D. #) 95-264605

Name of Project Manager: Mr. Ken Schiff Phone (714)- 755-3202

Designated Project Trustee Southern California Coastal Water Research Project SCCWRP

Description of Project Trustee capability or commitments to ensure that the project will be completed SCCWRP has been conducting ocean monitoring studies for 35 years. The San Diego RWQCB executive officers serve on the SCCWRP Board of Commissioners ensuring timely completion of the study.

Statement of Project Trustee ability/authority to receive and disburse funds. SCCWRP has the ability to receive and disburse funds. SCCWRP currently holds several contracts with the RWQCB.

DETAILED PROJECT INFORMATION

1. PROPOSAL DESCRIPTION Perform weekly sampling and monitoring of the outfall effluent. The samples will be analyzed for new indicator Bacteriodes and E. faecalis using quantitative PCR techniques. Host specific makers (e.g. human, dog, cow, ect.) of Bacteriodes will also be quantified. Specific illness causing Viruses will also be quantified.

2. PROBLEM STATEMENT The Doheny Epidemiology Study will assess the risk of swimming related illnesses following exposure to non-point source contaminated waters. Performing the new indicator and host specific monitoring on the outfall effluent may help establish with a greater degree of certainty that there is or is not a known human fecal contamination in the Doheny Beach surf zone.

3. HOW WILL THE PROJECT BENEFIT WATER QUALITY AND BENEFICIAL USES? Conducting this project in conjunction with the Epidemiology Study could provide a more definitive understanding of the source of fecal contamination in the Doheny Beach surf zone.

4. HOW WILL THE SUCCESS OF THIS PROJECT BE MEASURED? Ultimately water quality managers would like to be able to say with a higher degree of probability than currently exists, that fecal contamination found in a bathing beach sample originated from a either a predominantly human or a nonhuman source. This study strives to move closer to that desired goal.

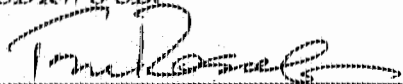
5. DETAILED WORK PLAN

Please include a detailed supplemental report of the proposal/project that includes the following: *** SEE ATTACHED

- a. Scope of work (work to be performed)
- b. Budget
- c. Task descriptions
- d. Methods and materials
- e. Resource needs
- f. Regulatory issues (environmental reviews, permits, etc.)
- g. Schedule
- h. Work products and documents to be retained for records
- i. Other information about the proposed project that may be of interest to the SDRWQCB.

I certify that the information provided in this application is an accurate and complete report of the costs, scope of work and expectations of this proposed project I am submitting to the SDRWQCB.

SIGNATURE



Date

4/18/07

