SAN ELIJO JOINT POWERS AUTHORITY

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August 19, 2008

Michael P. McCann
Assistant Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

RE: CAU:01-0125:jhaas
Place ID: 255265 Complaint No. R9-2008-0006
SEP Proposal and Waiver of Public Hearing

Dear Mr. McCann:

The purpose of this letter is to provide the California Regional Water Quality Control Board, San Diego Region, (Regional Board) with San Elijo Joint Powers Authority's (SEJPA) Supplemental Environmental Project (SEP) Proposal and to waive SEJPA's right to public hearing for Administrative Civil Liability Complaint No. R9-2008-0006.

The San Elijo Joint Powers Authority respectfully submits the enclosed SEP Proposal to Support the Atmospheric Deposition Component of the Bight '08 Survey. This project would be under the umbrella of the Bight '08 Survey that is administered by the Southern California Coastal Water Research Project (SCCWRP). The budget for the entire project is $45,000; the SEP funds of $4,500, which would be matched with $40,500 of in-kind services, represent 50% of the $9,000 in mandatory minimum penalties identified in Complaint No. R9-2008-0006.

By signing below, I agree to waive SEJPA's right to a public hearing before the California Regional Water Quality Control Board, San Diego Region regarding the violations alleged in the above referenced Complaint. I understand that I am authorized to give up SEJPA's right to be heard and to argue against the allegations made by the Assistant Executive Officer in the Complaint.

If you have any questions, please do not hesitate to contact me at (760) 753-6203 x72.

Sincerely,
SAN ELIJO JOINT POWERS AUTHORITY

Michael T. Thornton, P.E.,
General Manager

Enclosed: SEP Proposal

cc: Mary Ann Mann, City of Escondido
File

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CALIFORNIA REGIONAL WATER QUALITY CONROL BOARD
SAN DIEGO REGION
SUPPLEMENTAL ENVIRONMENTAL PROJECT (SEP) PROPOSAL

Project Requested by: San Elijo Joint Power Authority

Name of Project: Atmospheric Deposition and Harmful Algal Blooms

Date of Request: August 2008

Point of Contact: Patricia Berge, San Elijo Joint Powers Authority
760-753-6203 x70, bergep@sejpa.org
Ken Schiff, Southern California Coastal Water Research Project
714-755-3202, kens@sccwrp.org

Project Summary:
There are many sources of nutrients to the coastal ecosystem which could contribute to harmful algal bloom production, including sewage treatment plants, urban or agricultural runoff, industrial discharges, and atmospheric deposition. Of all these sources, the least is known about atmospheric deposition. This proposal focuses on supporting the atmospheric deposition component of the Bight'08 Survey. The project involves: 1) wet deposition during rain events; 2) dry deposition; and 3) calculation of atmospheric nutrient loading.

Total Life Cycle Cost for the Project: $45,000

Watershed/Water body/Location for Project: Carlsbad Hydrologic Unit/ So Cal coastline

Project Proposed Start Date and Time Line: Fall 2008 until Fall 2009

Organization Sponsoring Project: San Elijo Joint Powers Authority and
Southern California Coastal Water Research Project

Name of Project Manager: Ken Schiff, Southern California Coastal Water Research Project
714-755-3202, kens@sccwrp.org

Designated Project Trustee: Southern California Coastal Water Research Project

DETAILED PROJECT INFORMATION

1. Proposal description
Nutrient over-enrichment in coastal ecosystems can lead to plankton blooms such as red tides or toxin-producing algae. Recent evidence indicates that these harmful algal blooms (HABs) are becoming more frequent and more severe in southern California. In response, the 2008 Southern California Bight Regional Monitoring Survey (Bight'08) is being developed to assess not only

the extent and severity of these HABs, but also measure the inputs of nutrients to the ocean that can lead to HABs production. There are many sources of nutrients to the coastal ecosystem including sewage treatment plants, urban or agricultural runoff, industrial discharges, and atmospheric deposition. Of all these sources, the least is known about atmospheric deposition. This proposal focuses on supporting the atmospheric deposition component of the Bight'08 Survey.

2. Problem Statement

The atmosphere is currently an unmonitored source of nutrients to coastal ecosystems. While the San Diego County Air Pollution Control District (APCD) conducts extensive air monitoring, including smog precursors such as oxides of nitrogen, the APCD does not monitor all forms of nitrogen. In fact, there is very little focus on the forms of nitrogen most important to water quality regulators and the APCD performs no monitoring of nitrogen that deposits in water or on land surfaces that can contribute to water through sprinkler or rainfall washoff.

3. How will the project benefit water quality and beneficial uses?

This project will benefit water quality by quantifying the nonpoint source contribution of nutrients to the coastal ecosystem. Managers can compare these contributions to other sources of nutrients such as sewage treatment plants or surface runoff, including their linkage to the presence and timing of HABs. Better estimates of nutrients from atmospheric sources can result in more effective total maximum daily load (TMDL) development and implementation.

4. How will the success of this project be measured?

The success of this project will be measured in two ways: 1) successful completion of the project as determined by quantified flux and mass emissions from the atmosphere; and 2) assessment of relative nutrient contributions from different sources. If the contribution of nutrients from the atmosphere is large relative to other permitted sources (i.e., sewage treatment plants), then this provides managers the information to begin interactions with APCD and other air regulatory boards.

5. Detailed work plan

a. Scope of work (work to be performed)

This project will consist of three basic tasks: 1) wet deposition during rain events; 2) dry deposition; and 3) calculation of atmospheric nutrient loading.

b. Budget

The overall budget for this project is $45,000. The SEP funds of $4,500 will be matched with $40,500 of in-kind services.

c. Task descriptions

Task 1) Wet deposition. Wet deposition during rain events will be collected using precipitation collectors developed by the National Atmospheric Deposition Program (http://nadp.sws.uiuc.edu/). This sampler uses a moisture sensor to open the collector at the onset/culmination of precipitation.

Task 2) Dry deposition. Dry deposition will be collected using a water surrogate surface developed by Tasdemir[1] et al. This sampler uses an aerodynamic device with a water surface to capture both particulate and gas phase contaminants.

Task 3) Calculation of atmospheric nutrient loading. Nutrient flux will be calculated for the coastal ecosystem based on tasks 1 and 2 above. The flux estimate will be used to estimate annual loads of nutrients.

d. Methods and materials
Samples from both wet and dry atmospheric deposition will be analyzed by Ion Chromatography for a suite of nitrate, nitrite, ammonia, nitric acid, and organic nitrogen.

e. Resource needs
There are no specific resource needs for this project beyond stated in the proposal.

f. Regulatory issues (environmental reviews, permits, etc.)
This project will not require any regulatory reviews such as CEQA/NEPA. No regulatory permits will be required. There will be no need to modify landscape or disturb habitat.

g. Schedule
Sampling will start in Fall 2008 and continue for one year.

h. Work products and documents to be retained for records
The primary work product for this project will be a technical report at the conclusion of the study. This Technical Report will be available to post on the San Diego Regional Water Quality Control Board (SDRWQCB) web site. The data will also be made available through the Southern California Coastal Water Research Project (SCCWRP) web site for interested parties.

i. Other information of interest to SDRWQCB
This project will be conducted in coordination with the Bight'08 program. The information will be used to associate atmospheric deposition with the presence and timing of HABs.

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

Michael T. Thornton, P.E., General Manager
San Elijo Joint Powers Authority

8/19/08
Date

[1] , Y., Holsen, T.M. Gas-phase Deposition of Polychlorinated Biphenyls (PCBs) to a Water Surface Sampler (2006), J Environ Sci Hlth Part A, 2071-2087