

Appendix H

Aerial Deposition Study Progress Reports
by Southern California Coastal Waters Research Project

Quarterly Report of Progress
May 11, 1999

ESTIMATES OF POLLUTANT INPUTS TO SANTA MONICA BAY VIA AERIAL DEPOSITION

This is the first year of a three-year project. The first year is funded by the US EPA, the Los Angeles County Department of Public Works and SCCWRP. The project is being conducted in collaboration with UCLA's Institute of the Environment, the Santa Monica Bay Restoration Project (SMBRP), the US EPA's Great Water Program, and in cooperation with the South Coast Air Quality Management District (AQMD). The first year of this project intends to estimate the annual pollutant loads to Santa Monica Bay via aerial deposition, both directly to Bay waters, and indirectly by depositing onto land surfaces then washing off into the Bay during storm events.

We have successfully completed the winter phase of our sampling program. The sampling program included measurements of contaminants on aerosol particles from the atmosphere, dry deposition (what lands on a surrogate surface), and wet deposition (rain). Our master sampling site is located within the Santa Monica Bay watershed at UCLA. The AQMD samples eight other locations within the airshed (LA air basin) that can contribute to loading in Santa Monica Bay. We also sampled the sea surface microlayer and bulk seawater at nine stations located throughout Santa Monica Bay to estimate direct deposition. Sample analysis is currently underway for all of these samples. During the next quarter, SCCWRP staff will be mobilizing for our summer sampling season scheduled to begin in July.

*Quarterly Report of Progress
February, 2000*

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SANTA MONICA BAY VIA AERIAL DEPOSITION**

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We have made progress on four different phases of our project over the last quarter. The first phase was sampling. Sampling for the year is now completed. We conducted two additional sampling cruises over the last quarter than was required in order to capture Santa Ana wind conditions, an event that moves the urban air mass offshore. The second phase of our project was completing sample analysis. We anticipate having all samples analyzed by early February including aerosol particulates, dry deposition surfaces, wet deposition, sea-surface microlayer, and bulk seawater samples. The third phase of our project is information management. As we receive data from the laboratory, we are checking to ensure accuracy and completeness. Also, we have requested data from AQMD to obtain complimentary aerosol measurements outside of the Santa Monica Bay watershed, but inside of the Los Angeles airshed. A third phase of our project was quality assurance. We have met with AQMD twice and have analyzed a set of split samples. The goal of this interlaboratory calibration is to assess comparability prior to combining data sets.

During the next quarter, SCCWRP staff will make progress on two more phases of our project. The first phase will be data analysis. We intend to start preliminary examination of our results beginning in February. We also intend to begin integrating our results with the AQMD data set. The combined data set will be delivered to UCLA for continued work by the atmospheric transport and transformation modelers. The second phase of our project that we anticipate progress will be reporting. Our goal is to begin compiling a data report that includes the data generated under this project by April 2000. After the modelers have completed their tasks, an assessment report integrated our results, AQMD results, and modeled predictions will be constructed by July 2000.

An invited workshop entitled "Where air and water meet: Atmospheric deposition to the Pacific Coast" has been scheduled for February 9-10, 2000 at UCLA. The

workshop will be co-sponsored by the Ecological Society of America, the UCLA Institute of the Environment, and SCCWRP and will include nationally prominent atmospheric deposition scientists as well as National Estuary Program managers from around the country.

*Quarterly Report of Progress
April, 2000*

ESTIMATES OF POLLUTANT INPUTS TO SANTA MONICA BAY VIA AERIAL DEPOSITION

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We have made progress on two phases of our project over the last quarter. The first phase was reporting. We have compiled a Data Report that includes objectives, rationale, methods, quality assurance/quality control, information management, and raw data for the entire study. The second area of activity is data analysis and assessment. We have had three meetings with the UCLA Institute of the Environment that have been focused on data analysis, integration of project data with AQMD data sets, and atmospheric transport and deposition modeling.

During the next quarter, SCCWRP staff will continue to make progress on the data analysis and assessment report. The timeline for completion of the Data Assessment Report is for September 2000. We will also continue to make additional air measurements. We have received a \$50,000 grant from the US EPA Great Waters Program to complete this work. The additional sampling and analysis will address data gaps identified during the first year's work. This provides an excellent opportunity for the LACDPW to leverage any additional resources in the upcoming year against those being provided by the US EPA and SCCWRP.

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