VENTURA COUNTY
WATERSHED PROTECTION DISTRICT

PUBLIC WORKS AGENCY
RONALD C. COONS
Agency Director

Jeff Pratt
District Director

Gerhardt Hubner
Water/Environmental Resources

Peter Sheydayi
Design/Construction

Sergio Vargas
Planning/Regulatory

Tom Lagier
Operations/Maintenance

November 12, 2004

Mr. Ejigu Solomon, Stormwater Division Chief
California Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Ventura County NPDES Stormwater Permit No. CAS004002 (Board Order No. 00-108) – Response to Los Angeles Regional Water Quality Control Board Review of Ventura Countywide Stormwater Monitoring Program 2003/2004 Monitoring Report, July 2004

Dear Mr. Ejigu Solomon:

Thank you for taking the time to review and comment on the Ventura Countywide NPDES Stormwater Monitoring Program July 2004 Monitoring Report. The Monitoring Program is administered with an adaptive management strategy that allows change, in order to achieve continuous improvement. Feedback from the Regional Water Quality Control Board plays an important role in the adaptive process, as we strive for a better stormwater management program with the ultimate goal of improved water quality throughout Ventura County.

The following addresses each of your comments as outlined in the October 29, 2004 letter:

July Monitoring Report - Sampling Events Reported

The Permit requires six sampling events per year, with a minimum of 2 dry events and does not specify that the remaining four events must be wet. In fact, the way the Permit is worded, all six events could be dry. In spite of the ambiguity of the Permit, our Monitoring Program strives to collect a minimum of four wet and three dry events each year. Due to drought conditions and the occurrence of early storm events on major holidays (Thanksgiving, Christmas and New Years) during the 2003/2004 wet season, we were only able to capture three of the targeted four wet events.

Your letter dated December 10, 2002, stated that "all wet weather data will be evaluated and presented in the July Monitoring Reports and the only new data presented and analyzed for the October Annual Reports will be from the dry weather sampling." Per your directive, our July Monitoring Report includes data from only the wet monitoring events. The Annual Monitoring Reports include all yearly monitoring data, both wet and dry.

Stormwater Monitoring Program

Ventura County Watershed Protection District continues to expand and improve the Ventura Countywide Stormwater Monitoring Program through adaptive management, the use of sound scientific principles and state of the art monitoring stations. The following addresses concerns expressed in your letter dated December 10, 2002:

- **Toxicity Testing** – Based on good science and the professional opinion of Southern California Coastal Water Research Project (SCCWRP – see letter dated November 11, 2002), we will continue to use multi-organism toxicity testing: the freshwater organism, Ceriodaphnia dubia, for acute testing and the silverside marine fish, Menidia beryllina, for chronic toxicity testing.

- **Reporting** – Evaluation and presentation of monitoring data in the July monitoring report will include all wet weather events as well as any dry event data available at that time. Any subsequent dry event data will be analyzed and presented in the October Annual Report.

- **Heavy Metals QA/QC** - Heavy metals analysis of field blanks for previous monitoring events have resulted in the detection of low levels of metals. After consulting with Fruit Growers Laboratory (FGL) and water quality scientists at Larry Walker and Associates (LWA), the low level results are believed to be due to the extremely low detection limits used for metals analysis in our monitoring program. We are continuing to work with FGL and LWA to ensure that water samples collected and all analytical results are accurate, reliable and representative of water quality conditions in the monitored surface water systems. Additional QA/QC measures have been implemented to ensure quality control in the field, as well as the laboratory. These measures include field and laboratory duplicates, laboratory spikes, field blanks, trip blanks, stationary blanks and laboratory blanks as well as an internal matrix of testing to verify the reliability of FGL laboratory procedures.

  Ventura County Watershed Protection District continues to incorporate sound scientific judgment, principles and findings in the Ventura County Stormwater Monitoring Program and as such, supports the research efforts of SCCWRP. To assure the highest QA/QC, analytical laboratories providing services for our stormwater monitoring program (FGL, Associated Laboratories, Aquatic Bioassay Consulting Laboratories and Frontier Analytical) are participating in SCCWRP's Inter-laboratory Evaluation Study.

Precipitation and Flow

Recognizing the potential for the highest level of toxicity and contaminant concentrations, the Monitoring Program strives to sample the first rain event of the season, even though this is not mandated in our Permit. The first three rain events of the 2003/2004 season occurred on major holidays, Thanksgiving, Christmas and New Years. Due to logistical problems posed by staff and support services being on vacation, these are considered "black-out" dates for our program.

Unlike Los Angeles and Long Beach, Ventura County has large areas of open space and agricultural land. These expansive areas of pervious land in the watersheds of Ventura County absorb large amounts of rainfall, often resulting in little to no increase in flow with 0.25" rainfall events. The hydrographs of our river systems are influenced by a number of factors, including the amount of impervious surface area within the watersheds, precipitation patterns, antecedent dry conditions, rain intensity and rain duration. Due to these many variables, these dynamic hydrologic systems do not generate single hydrograph signatures based on rainfall amounts.

Toxicity Testing

The Ventura Countywide Monitoring Program will continue to use the test organisms recommended by the RWQCB (letter dated October 29, 2004): Ceriodaphnia dubia and Strongylocentrotus purpuratus.

Aquatic Bioassay and Consulting Laboratories, Inc. (ABC), a California Environmental Laboratory Accreditation Program (ELAP) certified laboratory (certification #1907), conducts all toxicity testing for our Monitoring Program. The U.S. EPA test methods used by ABC include EPA-821-R-02-012 for acute Ceriodaphnia dubia and EPA 600-R-95-136 for marine chronic Strongylocentrotus purpuratus toxicity testing. The test method cited in your letter, EPA-821-R-02-013, was incorrect in that it referenced the freshwater chronic EPA test method which is not suitable for use with the purple sea urchin, Strongylocentrotus.

Our Programs current chronic toxicity test organism is the purple sea urchin, Stronglyocentrotus purpuratus. The Permit does not require additional chronic toxicity testing using Ceriodaphnia dubia.

While the current Permit does not require that data sheets for toxicity test results be included in the Monitoring Reports, we will include them in all future monitoring reports per your request. Enclosed you will find the toxicity data sheets for the 2003/2004 July Monitoring Report events.

Water Quality Objective Comparison

The California Ocean Plan states that use of that Plan is not applicable to discharges to enclosed bays, estuaries or inland waters (California Ocean Plan page 1 C.2.). All

of our sampling sites (Mass Emission, Receiving Water and Land Use) are monitoring inland waters.

The scientific basis for comparing dry monitoring event data to the chronic criteria in the California Toxics Rule is based on the average four-day exposure of the test organism to the contaminant used to develop the chronic criteria. The chronic criteria have been developed based on the results of long-term, chronic exposure to contaminant concentrations. Dry event water quality conditions are fairly consistent over time, with little changes in water quality. Wet events have a wide variation in water quality over short periods of time, due to the dynamic nature of rain events and the variability of stormwater runoff. Because of these overall water quality differences, dry conditions should be compared to chronic criteria and short term exposure, wet events should be compared to acute criteria.

Potential Problematic Constituents

Through the Monitoring Program, constituents exceeding water quality standards are identified as Pollutants of Concern. These Pollutants of Concern are used to identify potential businesses and industries to be included in our Business Site-visit Program. Annual updates to the Business Site-visit Program are included in the Annual Stormwater Program Report.

Stormwater Monitoring Program data, plus data from TMDL monitoring efforts, will be used to develop TMDL implementation plans and identify appropriate best management practices to reduce and eliminate pollutant loads to surface water systems.

Total Suspended Solids

Our Monitoring Program is implemented using RWQCB-approved Standard Operating Procedures which define the QA/QC practices, collection methods, analytical test methods, and the laboratories used to conduct all chemical and toxicity analyses. Our collection and test methods are evaluated on a regular basis. All of the laboratories that participate in our Monitoring Program are California ELAP-certified and successful participants in the SCCWRP Intercalibration Laboratories Study. As such, the total suspended solids data collected using the RWQCB-approved Standard Operating Procedures is valid.

Historical TSS data from 2000 to present for all our stormwater monitoring stations ranged from 1.5 to 50 mg/l for dry events and 2.2 to 20,000 mg/l for wet events. Four years of collecting data from sites with variable watershed land use and open space, and during a variety of weather conditions ranging from dry to very large storm events, have contributed to a broad range of TSS results. The complexity of TSS loading exhibited in the results of our monitoring program suggests the challenge in selecting appropriate BMPs for the control of sediment loading to downstream

systems. It is important to remember that fluvial sediment transport is a natural phenomenon and plays an important role in downstream beach replenishment.

Your input is valued and we appreciate you taking the time to review and comment on our 2003/2004 July Monitoring Report. If you have questions or comments regarding this matter, please contact Darla Wise at (805) 654-3942.

Respectfully,

Jeff Pratt
District Director
Ventura County Watershed Protection District

Enclosures: ABC Toxicity Test Results

Cc: Lawrence Jackson
Darla Wise