



# Ventura Countywide Stormwater Quality Management Program

## Participating Agencies

Camarillo  
County of Ventura  
Fillmore  
Moorpark  
Ojai  
Oxnard  
Port Hueneme  
San Buenaventura  
Santa Paula  
Simi Valley  
Thousand Oaks  
Ventura County  
Watershed Protection  
District

February 28, 2006

Ms. Tracy Woods, Stormwater Unit  
Los Angeles Regional Water Quality Control Board  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

**Subject: RESPONSE TO LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD'S REVIEW OF VENTURA COUNTYWIDE STORMWATER MONITORING PROGRAM 2004/2005 MONITORING REPORT - JULY 2005 VENTURA COUNTY NPDES STORMWATER PERMIT NO. CAS004002/BOARD ORDER NO. 00-108**

Dear Ms. Woods:

We are in receipt of your January 20, 2006, letter (Attachment No. 1) with comments on the Ventura Countywide NPDES Stormwater Monitoring Program's July 2005 Monitoring Report. Feedback from the Regional Water Quality Control Board plays an important role in the development of the overview Stormwater Program, as we strive for a better stormwater management program that can achieve improved water quality throughout Ventura County.

Below are our responses to each of your comments as outlined in your January 20, 2006, letter:

### **RWQCB Comment No. 1 July Monitoring Report - Number and Type of Sampling Events Reported**

*The Report is to have represented the County's Storm Water Monitoring Program during the 2004/2005 water year. Data represented in the Report does not fully show storm water monitoring for the 2004/2005 water year. For mass emission stations, the NPDES Permit CAS004002 (Permit) states: "Up to six station events per year, including a minimum of 2 dry weather samples must be monitored." This is interpreted to mean that at least 6 samples are to be taken each water year (4 wet weather samples and 2 dry weather samples). Data from the county's mass emission stations shows that 4 wet weather samples were collected during the 2004/2005 water year, except sampling event 3 collected samples from a storm event that had less than 0.25 inches of rain for 7 out of 8 monitoring stations. The required 2 dry weather sampling events were not taken during the 2004/2005 water year. If in fact samples have been collected, then the collection dates and results were not included in the Report, as required. The Report does not contain the required 2 dry weather sampling events, as noted for the 2003/2004 Report, also.*



### **VCWPD Response Comment No. 1**

The Ventura Countywide Water Quality Monitoring Program conducts both wet and dry sampling events during the water year, October 1<sup>st</sup> through September 30<sup>th</sup> of each year. Due to time constraints for laboratories and data analysis for dry weather samples, an agreement was reached with RWQCB senior staff, Mr. Ejigu Solomon in 2002 for the remainder of this Permit term (Attachment No. 2, letter dated December 10, 2002). On page 3 of that letter it states: *"we expect 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 dry weather sampling."* Therefore, to comply with this RWQCB directive we only included wet monitoring events data from the current water year in the July 2005 Monitoring Report. The Annual Monitoring Report is submitted to the RWQCB in October of each permit year, and includes all water year monitoring data from both wet and dry monitoring events. This was explained in the District's 2004 response (Attachment No. 3, letter dated November 12, 2004) on behalf of the Countywide Program to RWQCB's comments on the July 2003-2004 Water Quality Report. We believe we are in full compliance with the sampling requirements under the current NPDES Stormwater Permit and Monitoring and Reporting Program issued to the Ventura Countywide Stormwater Program. We hope this puts to rest any further confusion in regards to submittal of data or information on this particular issue.

### **RWQCB Comment No. 2 - Event #3 Precipitation Amount**

*Since there needs to be at least 0.25 inches of rain from a storm event in order to create runoff in channels, storm water sampling events need to occur during storm events that produce at least 0.25 inches of rain. It appears that 7 of the 8 monitoring stations for event 3 collected storm water samples during storm events with less than 0.25 inches of rain (figures 4, 6, 7, & 9).*

### **VCWPD Response to Comment No. 2**

Monitoring Event No. 3 was a 24-hour event occurring December 5<sup>th</sup> through December 6<sup>th</sup>. The storm event was primarily a coastal storm with higher precipitation amounts in the lower areas of the watersheds. The precipitation map (Attachment No. 4) and daily rainfall table (Attachment No. 5) depict the variability of the precipitation totals throughout Ventura County for Event No. 3. There was no rainfall on the days immediately preceding December 5<sup>th</sup> or following December 6<sup>th</sup>. As shown on the precipitation map, many areas throughout Ventura County watersheds received more than 0.25" of rain during the 24-hour storm event.

The quantitative precipitation forecast is a tool used by District staff in determining whether or not an upcoming storm will meet our minimum monitoring criteria of 0.25". For Event No. 3, the quantitative precipitation forecast for Ventura was 0.69" (Attachment No. 6) and 1.41" of rainfall, which more than met the minimum criteria under the current NPDES Stormwater Permit and Monitoring and Reporting Program.

**RWQCB Comment No. 3 - Precipitation and Flow, Watershed Differences Between Ventura County and Los Angeles County**

*The first storms of the year generally produce the most toxic storm water, showing the need to sample these storms [See, Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report, Appendix C, Executive Summary of the Santa Monica Bay Receiving Waters Study by Southern California Coastal Waters Research Project. Excerpted from the Study of the Impact of Stormwater Discharge on the Beneficial Uses of Santa Monica Bay, July 8, 1999 (SCCWRP, 1999), Pg. 11]. This comment was noted for the 2003/2004 Report, also.*

*Since there needs to be at least 0.25 inches of rain from a storm event in order to create runoff in channels, storm water sampling events need to occur during storm events that produce at least 0.25 inches of rain. It appears that 7 of the 8 monitoring stations for event 3 collected storm water samples during storm events with less than 0.25 inches of rain (figures 4, 6, 7, & 9).*

**VCWPD Response to Comment No. 3**

Unlike the County of Los Angeles and the City of Long Beach, Ventura County has large areas of open space and agricultural land. These expansive areas of pervious land absorb large amounts of rainfall, often resulting in little to no increase in flow with rainfall events of 0.25". The first rainfall event of the wet season often results in a very minimal increase in the hydrographs, as upper channel flows often never reach the lower sections of the river systems. Ventura County river systems and their associated hydrographs are influenced by a number of factors including the amount of impervious surface area within the watersheds, precipitation patterns, antecedent dry conditions, sandy river bottoms, rain intensity and rain duration. Due to these many variables, the dynamic hydrologic systems do not generate single hydrograph signatures based on rainfall amounts, and do not resemble the surface water systems found in highly developed and urbanized areas such as Los Angeles, Long Beach, and San Diego. The Los Angeles County 1994-2000 Integrated Receiving Waters Impacts Report is not applicable to Ventura County due to the many watershed differences previously described above. Also see VCWPD's response to RWQCB Comment No. 1 above regarding the circumstances surrounding Sampling Event No. 3.

**RWQCB Comment No. 4 - Captured First Storm Event of the Wet Season/Precipitation and Flow**

*Of the County's 8 monitoring stations, 7 of the stations' storm water sampling dates show that the 2004 first storms of the season were not sampled (figures 4, 5, 7, & 9). In a storm event, the first flush of runoff typically contains relatively high concentrations of contaminants, which may then fall and fluctuate at lower levels for the remainder of the storm event. As a result of this contaminant concentration pattern through an event, the highest levels of toxicity are expected to be associated with this first flush. The first 0.25 inches of rain from a storm event creates runoff in channels (See, Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report. Appendix D. Low Flow Study). It has been shown those water*

*quality constituents such as nitrate, total phosphorus, turbidity, TSS, and hardness are higher in the smaller storms than larger storm events. Ventura County did not collect sampling data accurately representing storm water contaminants within its watersheds during the 2004 first storms of the season. This comment was noted for the 2003/2004 Report, also.*

**VCWPD Response Comment No. 4**

The first storm of the wet season occurred on October 17<sup>th</sup>, 2004 and was sampled by the Ventura Countywide Monitoring Program. The 48 hour sample collection began on October 16<sup>th</sup> at midnight and included all 8 monitoring stations of the Ventura Countywide Stormwater Monitoring Program; land use, tributaries, and mass emissions.

Land use and tributary sites were sampled during the first monitoring event of the wet season as directed in the Monitoring and Reporting Program, and were mistakenly identified as having been sampled during Events Nos. 2, 3 and 4 in Report Figures Nos. 6, 7 and 9. This mistake was only recently discovered by District staff and is in the process of being corrected. Corrected figures and pages will be sent under separate cover. Except for the reporting mistake noted above, the Program did collect sampling data during the first storm of the wet season, and did accurately represent storm water contaminants within its watersheds in 2004. We believe the Program is in compliance with all the current NPDES Stormwater Permit's sampling requirements.

**RWQCB Comment No. 5 - Toxicity Testing/Procedure When a Test Organism Is Unavailable**

*When a certain species of organism such as: purple sea urchin (*Strongylocentrotus purpuratus*) has been routinely used for toxicity testing in a program, it is not recommended to change the testing species during the course of the program. It would have been advisable to have not tested, than in mid-stream change the testing species.*

**VCWPD Response to Comment No. 5**

The Ventura Countywide Monitoring Program, through its contracted analytical laboratory, did utilize the purple sea urchin species for toxicity testing in an attempt to comply with our Monitoring and Reporting Program. The regular test species were unavailable. We will use the test organisms recommended by the RWQCB (Attachment No. 3, letter dated October 29, 2004), *Ceriodaphnia dubia* and *Strongylocentrotus purpuratus* for toxicity testing. However, we understand per the RWQCB's January 20, 2006 directive that in the event either of these test organisms is not available for testing, the test will not be conducted on an alternate organism.

**RWQCB Comment No. 6 - Testing Protocol/Laboratory Credentials and ABC Involvement With SCCWRP**

*The toxicity testing lab, Aquatic Bioassay & Consulting Laboratories, Inc., should have taken precautions as to not allow the dissipation of the constituent(s) in the 3 samples collected during event 1. In the future, only*

*lab's that have participated in the Southern California Coastal Water Research Project's (SCCWRP) toxicity testing program are to analyze samples for toxicity.*

**VCWPD Response No. 6**

Aquatic Bioassay and Consulting Laboratories, Inc. (ABC), conducts all toxicity testing for the Ventura Countywide Monitoring Program and is a California Environmental Laboratory Accreditation Program (ELAP) certified laboratory (certification #1907). It should be noted our current NPDES Stormwater Permit and Monitoring and Reporting Program (Attachment No. 8) does not require test laboratories be involved with SCCWRP. In addition, ABC participates in numerous SCCWRP programs, including the Intercalibration Laboratory Study, the Bight 03' Study and the Stormwater Monitoring Coalition.

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. In following EPA test protocols, all QA/QC guidelines are followed regarding the storage and handling of samples and every possible precaution is taken to prevent dissipation of elements from the samples. We believe the Program is in compliance with all the current NPDES Stormwater Permit's testing protocol and laboratory credential requirements.

**RWQCB Comment No. 7 - Permit Toxicity Testing Requirements**

*Acute toxicity tests were not performed at the Mass Emission stations and are to be.*

**VCWPD Response to Comment No. 7**

The current Ventura Countywide NPDES Stormwater Permit and Monitoring and Reporting Program does not require acute toxicity testing for Mass Emission samples. (Attachment No 8 - Monitoring and Reporting CI 7388 page T-7 Section 2.g). We believe the Program is in compliance with the current Program's NPDES Stormwater Permit's toxicity testing requirements.

**RWQCB Comment No. 8 - Ocean Basin Plan Criteria/Conflict With Application To Stormwater**

*The Water Quality Control Plans for Ocean Waters of California (Ocean Plan), which contains water quality objectives for the coastal waters of California, is appropriate to be used in comparing the County's monitoring data to water quality exceedances. Section C.1 of the California Ocean Plan states: "Nonpoint sources of waste discharges to the ocean are subject to Chapter I Beneficial uses, Chapter II - WATER QUALITY OBJECTIVES (wherein compliance with water quality objectives shall, in all cases, be determined by direct measurements in the receiving waters) and Chapter III- PROGRAM OF IMPLEMENTATION Parts A.2, D, E, and H." This comment was noted for the 2003/2004 Report, also.*

#### **VCWPD Response No. 8**

The California Ocean Plan clearly states use of that Plan is not applicable to discharges to enclosed bays, estuaries or inland waters (Attachment No. 9, California Ocean Plan page 1, C.2.). All of the Program sampling sites (Mass Emission, Receiving Water and Land Use) monitor inland surface water per requirements contained in the current NPDES Stormwater Permit's Monitoring and Reporting Program issued by the RWQCB. The RWQCB referenced section of the Ocean Plan would only be appropriate for data comparisons of nonpoint source discharges that directly discharge to the Pacific Ocean.

#### **RWQCB Comment No. 9 - Data Comparison To Both Acute and Chronic CTR Criteria**

*Monitoring data are to be compared to both acute and chronic criteria in the California Toxics Rule. In toxicity testing, it is the sub-lethal effect of the exposure that is being tested rather than the duration of exposure. Sub-lethal effects include damage to reproductive rates, growth, etc. Acute testing is showing lethal effects-death. This comment was noted for the 2003/2004 Report, also.*

#### **VCWPD Response to Comment No. 9**

The scientific basis for comparing dry monitoring event data to the chronic criteria in the California Toxics Rule (CTR) 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. Wet events consisting of a short-term exposure duration should be compared to acute CTR criteria. Both these issues were previously shared with the RWQCB in the District's written response (Attachment No. 3, letter dated November 12, 2004) to RWQCB's comments on the July 03/04 water quality monitoring report.

#### **Summary**

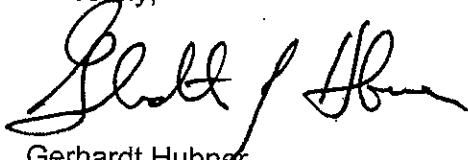
We wish to acknowledge the time and input in reviewing and commenting on the Ventura Countywide 2004/2005 July Water Quality Monitoring Report. Nevertheless, staff at the District is frustrated by repeated attempts to address and resolve comments regarding the Monitoring Program for this year and previous years Reports as noted above. Historically, meetings and written correspondence follow each Report in an attempt to clarify issues raised by review of the Report, and comments generated, resulting in considerable time and effort of time by both District and RWQCB staff. A permit requirement of a single annual water quality monitoring report would reduce confusion, provide a complete report on the water year (both wet and dry events) and reduce the amount of resources required to produce and review the report. We recommend both the RWQCB and the Ventura Countywide NPDES Program would be better served with a permit requirement of

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one annual water quality monitoring report. We remain committed to further improvements in the Stormwater Monitoring Program, and working with Regional Board staff towards that goal.

If you have questions or comments regarding this letter or wish to meet to discuss the Monitoring Program, please contact Darla Wise at (805) 654-3942 or myself at (805) 654-5051.

Sincerely,



Gerhardt Hubner  
District Deputy Director

Attachments

1. RWQCB-LA letter to VCWPD, dated January 20, 2006
2. RWQCB-LA letter to VCWPD, dated December 10, 2002
3. VCWPD letter to RWQCB-LA, dated November 12, 2004
4. VCWPD Storm Watch Precipitation Map
5. Daily Rainfall Table – October 1, 2004 to September 30, 2005
6. Quantitative Precipitation Forecast – Issued 12/03/2004
7. RWQCB-LA letter to VCWPD, dated October 29, 2004
8. Ventura Countywide Stormwater Program - Monitoring and Reporting Program No. CI 7388
9. California Ocean Plan – Section C.2

cc/without Attachments:

Countywide Stormwater Management Committee Representatives  
Xavier Swamikannu, Stormwater Unit Chief, RWQCB-LA  
Deborah Smith, Assistant Executive Officer, RWQCB-LA

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