SVWQC Communication Report

DATE:	April 24, 2008
TO:	Jodi Pontureri, Central Valley Regional Water Quality Control Board
CC:	Joe Karkoski, Central Valley Regional Water Quality Control Board Margie Read, Central Valley Regional Water Quality Control Board
FROM:	Sacramento Valley Water Quality Coalition
SUBJECT:	Water Quality Exceedances
EVENT DATES:	December 19 - 20, 2007
EVENT TYPE:	Storm Season
RESULT TYPES:	Laboratory Chemistry Analyses

SUMMARY OF EXCEEDANCES

The Sacramento Valley Water Quality Coalition (Coalition) conducted water sampling from December 19, 2007 through December 20, 2007 as required by the Irrigated Lands Conditional Waiver and the Coalition's Monitoring and Reporting Program Plan (MRP). This Communication Report presents the results of additional evaluations and provides information supplemental to the Exceedance Report dated February 21, 2008. The observed exceedances of the Basin Plan's numeric and narrative objectives and planned follow-up actions are summarized in **Table 1**.

FOLLOW-UP ACTIONS

In response to the observed exceedances of the Basin Plan narrative and numeric toxicity objectives, the following actions were implemented:

- For exceedances being addressed by Management Plans or that trigger new Management Plans, follow-up actions will be performed as determined in those plans.
- No follow-up sampling was planned or conducted.
- Chemical exceedances were compared with toxicity results to determine if they may have contributed to significant toxicity.
- Information regarding these exceedances was provided to local growers in the affected subwatershed through local outreach efforts.

Discussion of additional relevant follow-up actions was initiated with the representatives of the affected subwatershed as outlined in the Coalition's communication strategy document.

Results of Chemical Analyses

Chemical exceedances were compared with toxicity results to determine if they may have contributed to significant toxicity. *Selenastrum* toxicity was observed in samples collected at the SWNWR and UCBRD sites during this event, and *Ceriodaphnia* toxicity was observed in the sample collected at WLSBP.

- No toxicity was observed at CCCPY.
- In the SWNWR sample, diazinon was elevated (0.154 ug/L) and exceeded the Basin Plan objective of 0.1 ug/L, but diazinon is not expected to affect *Selenastrum* at concentrations below 500 ug/L. In addition, simazine (11.9 ug/L) was elevated and exceeded the Basin Plan objective of 4 mg/L (California Primary MCL). Simazine may have contributed to the reduction in *Selenastrum* growth but was below concentrations expected to cause direct *Selenastrum* toxicity. Based on evaluation of the toxicity and chemistry results, it was determined that diuron (which does not have an adopted numeric objective) was the probable cause of *Selenastrum* toxicity in this sample (*Event 25 Toxicity Communication Report, Amended April 24, 2008*).
- In the UCBRD sample, simazine (8.61 ug/L) exceeded the Basin Plan narrative limit (California Primary MCL) of 4 mg/L. Simazine may have contributed to the reduction in *Selenastrum* growth but was below concentrations expected to cause direct *Selenastrum* toxicity. Based on evaluation of the toxicity and chemistry results, it was determined that diuron (which does not have an adopted numeric objective) was the probable cause of *Selenastrum* toxicity in this sample (*Event 25 Toxicity Communication Report, Amended April 24, 2008*).
- In the WLSBP sample, boron (2,300 ug/L) exceeded the Basin Plan narrative limit (Ayers and Westcott UN Agricultural Supply Goal) of 700 ug/L. Selenium (11 ug/L) exceeded the California Toxics Rule limit of 5 ug/L. In addition, TDS (750 mg/L) exceeded the Basin Plan narrative limit (California recommended Secondary MCL) of 500 mg/L. It is highly unlikely that any of these exceedances caused or contributed to the *Ceriodaphnia* toxicity observed at WLSBP.

CONCLUSIONS AND ADDITIONAL FOLLOW-UP ACTIONS

Based on the observed exceedances, the primary follow-up actions recommended are to provide the information in this report to growers in each watershed and to implement the standard procedures outlined in the Coalition's communication strategy document. No other additional follow-up actions or reports are recommended or planned for the observed exceedances based on these results. All other exceedances cited in this report will be addressed by specific management plans, either ongoing or planned.

Table 1. Summary of Exceedances and Follow-Up Actions

Site ID	Site	Sample Date	Analyte	Units	Result	WQO[1]	WQO Basis[2]	Follow-up Evaluations				
								Existing Management Plan?	New Mgt Plan Triggered?	Follow-up Sampling	Campare to Tox Results	Outreach
CCBRW	Coon Creek at Brewer Road	12/20/07	*E. coli*	MPN/100mL	820	235	BPA	YES	NO	—	NO	X
CCCPY	Cache Creek at Capay Diversion Dam	12/20/07	Boron	ug/L	2300	700(5)	Narrative	YES	NO	—	YES	X
DCGLT	Dry Creek at Alta Mesa Road	12/20/07	*E. coli*	MPN/100mL	520	235	BPA	YES	NO	—	NO	X
GILSL	Gilsizer Sl. at G. Washington Rd	12/20/07	*E. coli*	MPN/100mL	> 2400	235	BPA	YES	NO	—	NO	X
LSNKR	Lower Snake R. at Nuestro Rd	12/20/07	*E. coli*	MPN/100mL	580	235	BPA	YES	NO	—	NO	X
NRTCN	North Canyon Creek	12/21/07	*E. coli*	MPN/100mL	290	235	BPA	YES	NO	—	NO	X
PNCGR	Pine Creek at Nord Gianella Road	12/19/07	*E. coli*	MPN/100mL	> 2400	235	BPA	YES	NO	—	NO	X
SWNWR	Sweany Creek at Weber Road	12/19/07	Diazinon	ug/L	0.154	0.1	BPA	NO	NO	—	YES	X
SWNWR	Sweany Creek at Weber Road	12/19/07	Simazine	ug/L	11.922	4(3)	Narrative	NO	NO	—	YES	X
UCBRD	Ulatis Creek at Brown Road	12/19/07	*E. coli*	MPN/100mL	> 2400	235	BPA	YES	NO	—	NO	X
UCBRD	Ulatis Creek at Brown Road	12/19/07	Simazine	ug/L	8.608	4(3)	Narrative	NO	NO	—	YES	X
WLSBP	Willow Slough Bypass at SP	12/19/07	Boron	ug/L	2300	700(5)	Narrative	YES	NO	—	YES	X
WLSBP	Willow Slough Bypass at SP	12/19/07	Selenium	ug/L	11	5	CTR	NO	YES	—	YES	X
WLSBP	Willow Slough Bypass at SP	12/19/07	TDS	mg/L	750	500(4)	Narrative	YES	NO	—	YES	X

1 Water Quality Objective or Narrative Interpretation Limit

2 Water Quality Objective Basis: *BP* = Central Valley Basin Plan; *BPA* = Basin Plan Amendment; *CTR* = California Toxics Rule; *Narrative* = unadopted limits used to interpret Basin Plan narrative objectives by the Central Valley Regional Board.

3 California 1° MCL

4 California recommended 2° MCL

5 UN Agricultural Supply Goal (Ayers and Westcott 1985)