

## G. Fred Lee & Associates

---

27298 E. El Macero Dr.  
El Macero, California 95618-1005  
Tel. (530) 753-9630 \$ Fax (530) 753-9956  
e-mail: gfredlee@aol.com  
web site: <http://members.aol.com/gfredlee/gfl.htm>

Via e-mail  
Enclosures via regular mail

April 8, 1999

Dr. Valerie Connor  
Environmental Specialist  
Reg Water Quality Control Board  
3443 Routier Road, Suite A  
Sacramento CA 95827

Dear Val:

Following up on yesterday's Cache Creek – Putah Creek TAC meeting where there was discussion about the stormwater and surface water monitoring that UCD is doing associated with the LEHR site, I wish to bring to your attention the sections of the current "Revised Field Sampling Plan UCD Davis Additional Field Investigations LEHR/SCDS Environmental Restoration, Davis, California" December 1997 that are pertinent to this monitoring. Over the past four years, through DSCSOC I have filed repeated complaints with the LEHR site Remediation Program Managers (RPMs) about the inadequate stormwater monitoring at the LEHR site. I have provided detailed comments on the inadequacies and have written and published two refereed journal papers on this issue.

The UCD L. Vanderhoef administration has been playing games with respect to failing to develop a credible monitoring program where they have ignored DSCSOC's repeated comments on deficiencies. Copies of my/DSCSOC's comments are available from the DSCSOC web site (<http://members.aol.com/dcsoc/dcsoc.htm>) as well as my web site (<http://members.aol.com/gfredlee/gfl.htm>). The RPMs (US EPA Region IX-Kathy Setian, CVRWQCB-Susan Timm, DHS-Steve Hsu and DTSC-Duncan Austin) have been allowing UCD to continue to fail to protect the public's interests and to waste public funds by conducting inadequate surface water and stormwater monitoring programs.

While UCD (Brian Oatman) claimed last January that the RPMs have agreed to the surface water monitoring program, in fact, the RPMs, while providing comments on an earlier draft, have never as a group formally reviewed it or officially adopted it as a credible surface water/stormwater monitoring program. Further, it is obvious to anyone who understands surface water quality issues that this revised draft ignores basic principles of reliable monitoring. It is important to note that even though DSCSOC has provided detailed comments on this draft, UCD has never responded to these comments and did not include responses in the revised December 1997 LEHR site monitoring program that was made available to the RPMs in December 1998.

When I raised this issue in an RPM meeting last January, there was agreement among the RPMs that while they had individually provided comments on this revised draft monitoring program, there was need for the RPMs to review the adequacy of the UCD responses to their comments and formally adopt at a public RPM meeting this revised monitoring plan. It is now four months later, and this has not been done. Meanwhile, UCD continues to collect inadequate and unreliable data on the impacts of stormwater runoff from the LEHR site on the beneficial uses of Putah Creek.

As I mentioned yesterday, part of the LEHR site stormwater is discharged into the UCD campus sewerage system which is then at times inadequately treated by the existing treatment works and discharged to Putah Creek. Therefore, the UCD campus wastewater treatment plant discharge is an area of concern with respect to LEHR site impacts on Putah Creek water quality. This situation was acknowledged in the original sampling program for the LEHR site which included sampling the campus wastewater treatment plant discharges to Putah Creek. However, when I found through review of those data that UCD was discharging excessive ammonia to Putah Creek, UCD/DOE terminated the monitoring of ammonia in the campus wastewater treatment plant discharge to Putah Creek without gaining the approval of the RPMs prior to this action. DSCSOC has repeatedly requested that that monitoring be reinstated. Thus far, the RPMs have failed to act on this matter and are allowing UCD to hide the inadequate treatment that was revealed by LEHR site monitoring of the effluent that has been occurring at the campus wastewater treatment works.

With respect to the issue of greatest concern to the Cache Creek - Putah Creek toxicity studies, according to this write-up, UCD is using the acute toxicity test EPA method 600/4-90-D27F. It has been my repeated recommendation that UCD must use the short-term chronic test with *Ceriodaphnia*, fathead minnow larvae and *Selenastrum*, i.e. the standard US EPA three-species test (Lewis *et al.* 1994).

Another significant deficiency with the LEHR site stormwater and surface water monitoring is the failure to conduct a number of the chemical analyses with sufficient sensitivity to detect potential problems. An example of this is total chromium where a detection limit of 10 µg/L is used. As I have pointed out to UCD/DOE and the RPMs as well as published a discussion of this topic (see attached paper and report), according to US EPA publications, chromium VI can be toxic to common zooplankton at less than 0.5 µg/L. UCD with inadequate oversight by the RPMs continues to inadequately monitor for potential toxicity due to chromium VI, even though the campus wastewater discharges frequently contain total chromium at concentrations of 5 to 10 µg/L. There could readily be chromium VI in this discharge at toxic levels to zooplankton.

Further, both the mercury and chlordane analyses are conducted with analytical procedures which cannot detect the potential for bioaccumulation in Putah Creek fish. When I tried to get UCD to conduct bioaccumulation studies of Putah Creek fish, they refused to do so. This is why DSCSOC went to ATSDR for help. The ATSDR studies revealed the excessive bioaccumulation of mercury and lead in Putah Creek fish near LEHR. When I indicated that this should be an ongoing bioaccumulation monitoring program, the RPMs refused to back DSCSOC and deferred to Susan Timm who reported back to the RPMs that you indicated that it would be “precedent-setting” for the CVRWQCB to require that an NPDES-permitted wastewater or stormwater discharger conduct

bioaccumulation studies in the receiving waters where there is significant potential for excessive bioaccumulation to be occurring in which constituents in the permitted discharges could be causing or contributing to this problem.

Based on Susan Timm's comments, it appears that the current CVRWQCB administration with whom she reviewed this matter, like the previous administration under its former executive officer, does not want to bring the CVRWQCB's approach toward receiving water monitoring of wastewater discharges and stormwater runoff impacts out of the dark ages into at least a 1990 level of public health and interest protection by requiring adequate monitoring of the potential impacts of these discharges on the receiving water quality. It was this same fear of precedent-setting by requiring adequate toxicity and bioaccumulation monitoring of wastewater discharges that caused the public to contact Governor Wilson to ask for his assistance in this matter. This ultimately resulted in the former executive officer being terminated.

As you know, through monitoring of fish tissue in the past few years, bioaccumulation of hazardous chemicals in fish has become one of the, if not the most important, water quality problems within the Central Valley Regional Water Quality Control Board's area of responsibility. Bioaccumulation monitoring has been a standard practice in many areas for over 20 years. The failure of the CVRWQCB administration to support bioaccumulation monitoring and adequate toxicity testing of domestic wastewater and stormwater runoff has allowed this problem to go on for years without being detected.

I feel that the issue of the adequacy of the NPDES-permitted stormwater runoff monitoring at the LEHR site needs to be reviewed by the CVRWQCB. As it stands now, UCD is deliberately, with concurrence of the RPMs by lack of action on requests made by DSCSOC, being allowed to carry out inadequate surface water/stormwater monitoring programs at the LEHR site. If you or others have questions or comments on this situation, please contact me. Any help you can provide in getting the CVRWQCB to critically review the adequacy of the LEHR site stormwater runoff and wastewater discharges that contain LEHR site stormwater would be appreciated. Please feel free to bring this issues to the attention of the Cache Creek – Putah Creek TAC for their review and comment.

Sincerely yours,

Fred

G. Fred Lee, PhD, DEE

Copy to: J. Roth, w/o enclosures

GFL:oh  
Enclosures

## References

Lee, G.F. and Jones-Lee, A., "Stormwater Runoff Water Quality Evaluation and Management Program for Hazardous Chemical Sites: Development Issues," Superfund Risk Assessment in Soil Contamination Studies: Third Volume, ASTM STP 1338, K.B. Hodginott, Ed., American Society for Testing and Materials, pp. 84-98 (1998).

Lee, G.F. and Jones-Lee, A., "Under-Regulation of Chromium in Ambient Waters," Report of G. Fred Lee & Associates, El Macero, CA, February (1998).

Lee, G.F. and Jones-Lee, A., "Under-Regulation of Chromium in Ambient Waters," SETAC News 18(4):22, July (1998).

Lee, G.F. and Jones-Lee, A., "Evaluation of Surface Water Quality Impacts of Hazardous Chemical Sites," Remediation, 9:87-118 (1999).