Comments on the University of California, Davis Winter Quarter 2004 Water Monitoring Report Submitted by G. Fred Lee, Ph.D., DEE Technical Advisor to DSCSOC G Fred Lee & Associates El Macero, California

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Julie Roth, Executive Director DSCSOC

Julie, I have reviewed the September 28, 2004 University of California Davis winter quarter 2004 water monitoring report. Presented below are my comments on this report.

Overall

This report suffers from some of the same types of problems as UCDs previous monitoring reports. For example, Appendix B page 2 of 5, (metals-stormwater table) lists the mercury detection limit as 0.2 micrograms per liter. As I have discussed in the past, the detection limits for mercury analyses should be one to two nanograms per liter since concentrations above this amount can lead to excessive bioaccumulation in fish.

The concentration of mercury reported in the February 17, 2004 stormwater runoff sample was less than 0.066 micrograms for liter. UCD reporting mercury concentrations of less than 66 nanograms per liter represents a significant problem with respect to mercury analyses since 50 nanograms for liter is the current water quality objectives for mercury in Putah Creek.

I am also concerned about the total chromium concentrations reported in the stormwater runoff sample of total chromium of 29.7 micrograms for liter. This concentration would be in violation of the current water quality objective if the chromium is in chrome VI oxidation state.

There is the ongoing problem of not using sufficiently sensitive analytical methods for the organochlorine pesticides and PCBs. The stormwater runoff samples show concentrations of less than detection limit for these chemicals. However, concentrations below the detection limits can bioaccumulate to excessive levels in fish tissue.

Another significant problem with this report is the failure of UCD to provide a discussion of the data with respect to water quality implications of the data obtained. A credible report would contain a presentation of the data and a discussion of its significance.

If you have questions on these comments please contact me.

Fred