S. GEOFFREY SCHLADOW, PH.D.
624 OAK AVENUE
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March 15, 2004

Ms. Linda Fiack
Community Development Agency
292 West Beamer St
Woodland CA 95695

Dear Ms Fiack:

The suspended sediment and turbidity monitoring program for Cache Creek began earlier this year on January 16, 2004, in order to provide baseline measurements of suspended sediment concentration and turbidity as a function of flow rate and location along the creek. Six locations (shown in Fig. 1) were subsequently sampled four times - on January 16, 2004, February 16, 2004, February 18, 2004 and February 27, 2004, covering a range of flow levels (Fig. 2). At each location, turbidity was measured on site with a Hydrolab Quanta multi-parameter probe, and two 250 ml water samples were collected for laboratory analysis of turbidity and total suspended sediment (TSS). Under the low flow conditions observed on January 16, 2004 and February 16, 2004, measurements and water samples were taken by wading directly within the main channel and sampling at a depth of one foot below the water surface. High flow levels on February 18, 2004 and February 27, 2004 required samples to be collected from bridges at each sites with a Depth Integrating Suspended Sampler lowered to a depth of one foot from the water surface. For each series of measurements, sampling commenced at Arbuckle Road (Rumsey Bridge) and then proceeded downstream to Road 99W (Yolo).

Table 1 provides the turbidity data collected in the field for each day, at each location. Provisional discharge values from the Rumsey (RUM) and Yolo (CCY) hydraulic gages were obtained from the California Data Exchange Center (http://cdec.water.ca.gov) on March 14, 2004, and are provided for the moment sampling occurred at each location. At this time, results from laboratory turbidity and TSS results are not yet available. The first two sets of measurements, January 16, 2004 and February 16, 2004, were taken in low flow conditions 250 cubic feet per second (cfs) and 72 cfs at the Yolo gage. The third and fourth sets of measurements, February 18, 2004 and February 27, 2004, were collected under substantially higher flow rates of 12,300 cfs and 6,120 cfs, respectively at the Yolo gage. During the large event sampled on February 18, 2004, all samples downstream of Rumsey were above the 2000 NTU upper limit of the probe, therefore accurate turbidity values will be provided by the laboratory analysis.

Fig. 3 shows the discharge vs. turbidity data collected at the Road 99W (Yolo) site on a log-log plot. The turbidity value reported for the highest flow sampled at this time is

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2000 NTU, however this is the upper limit of the probe, so the actual value is likely to be higher.

Data collection will continue at roughly one-month intervals, and during flood events to capture a range of flow levels. Please contact me if you have any further questions.

Sincerely,

S. Geoffrey Schladow

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Table 1 - Cache Creek discharge and turbidity values for the first four sampling events of the 2004 monitoring season.

Location	1/17/2004	2/16/2004	2/18/2004	2/27/2004
Rumsey Discharge (cfs)[1]	NA	NA	9,223	7,565
Yolo Discharge (cfs)[1]	250	72	12,300	6,120
Arbuckle Rd (Rumsey Bridge)	11.9	27.6	1,284	549
Road 85 (Capay Bridge)	18.2	60.3	>2000[2]	722
Road 87 (Esparto Bridge)[3]	18.4	18.3	>2000[2]	740
I505 Bridge[4]	21.8	21.3	>2000[2]	789
Road 94B Bridge	26.7	35.35	>2000[2]	837
Road 99W Bridge (Yolo)	41.7	25.3	>2000[2]	887

Notes:

1. Provisional discharge values obtained from the California Data Exchange Center (http://cdec.water.ca.gov) on March 14, 2004. Data is provisional and is subject to change. Discharge values from Rumsey gage are not available at time of sampling.
2. Turbidity values above the range of the probe.
3. Gordon Slough not sampled in winter.
4. 1/17/04 and 2/16/04 samples were collected upstream at the old Miller's Crossing site, 2/18/04 and 2/27/04 samples collected from the I505 bridge deck.

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Fig. 1 - TSS and Turbidity Monitoring Stations, Cache Creek

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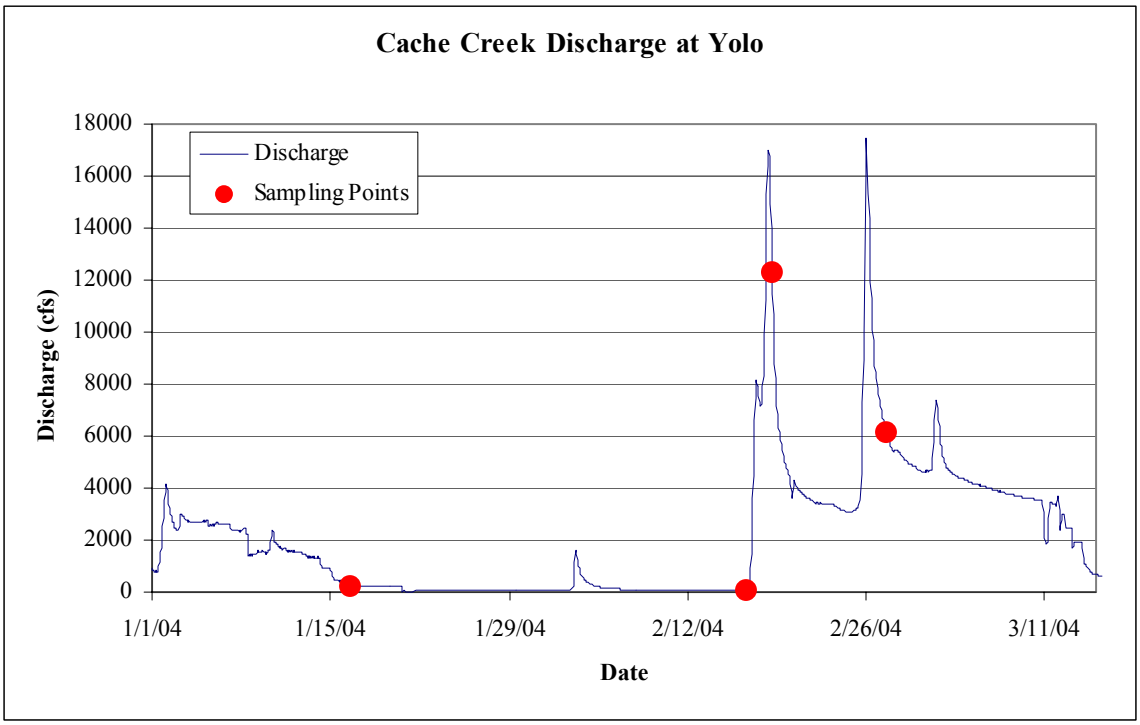

Fig. 2 – Cache Creek discharge at Yolo, and time of turbidity sampling. Provisional discharge values obtained from the California Data Exchange Center (http://cdec.water.ca.gov) on March 14, 2004. Data is provisional and is subject to change.

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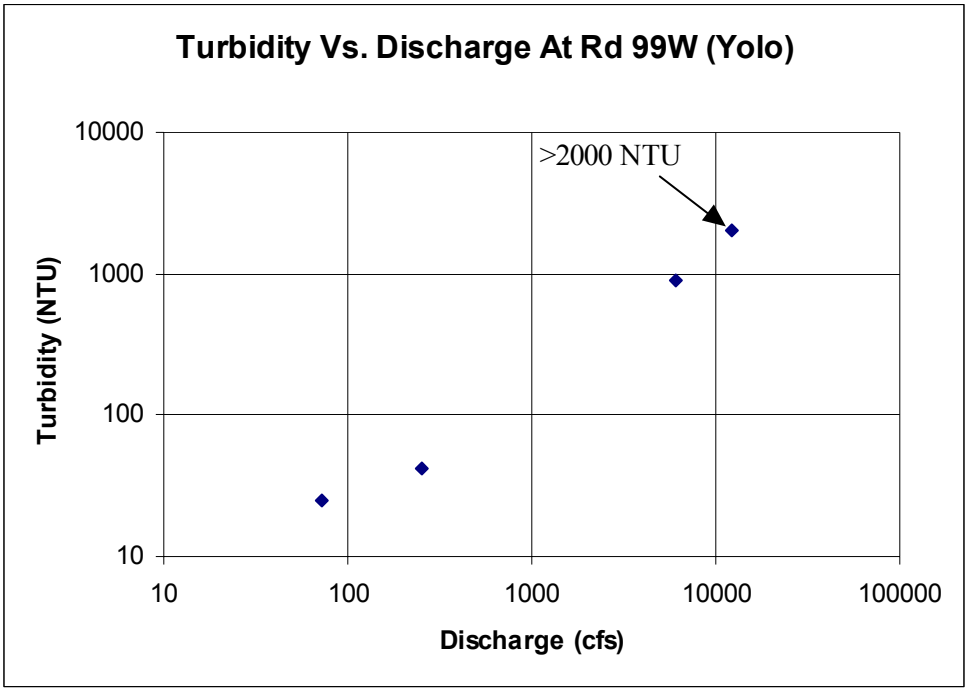

Fig. 3 - Discharge vs. turbidity at the Road 99W bridge (Yolo) site for each of the sampling dates. The highest value is plotted at 2000 Ntu however; this is the upper limit of the probe. Actual turbidity value will be determined by the laboratory analysis.

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