

From: "jnoell@Copper.Net" <jnoell@Copper.Net>
To: <AB2121Policy@waterboards.ca.gov>, Alan Levine <alevine@mcn.org>
Date: 3/25/2010 10:59 PM
Subject: effect of Williamson Act cattle operation diversions on coho
Attachments: D-Osfm2009JL-3.xls

March 25, 2010
AB 2121
To Whom it may concern:

The data for the attached graphic was collected downstream of a grass-fed cattle operation where about 50 calf/cow pairs were grazed mostly in a 40 acre plot within the riparian zone. The data is 10 minute data. This data was shared in a complaint to DFG. DFG did *NOTHING!* Water Quality did virtually nothing.

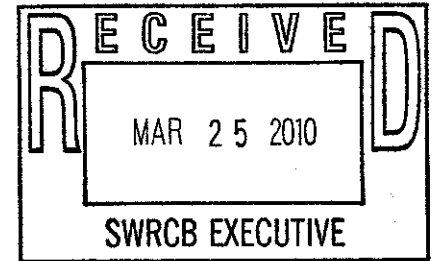
As you can see, the dissolved oxygen levels drop into the lethal range. Pumping to water the cows was the major factor. But, clearing the riparian vegetation with a bulldozer was also a factor in that it elevated temperature. Nutrients were a factor in that they contaminated the water and created an algae bloom. The algae bloom covered the surface and blocked oxygen from the air. Cows grazed for 3/4 of a mile within 5 feet of the river and walked through the river.

I watched the Y-O-Y coho disappear at my home's water intake as the d/o levels declined and cattle pumping eliminated flow. My domestic supply was extinguished by the cattle operation diversion—I couldn't pump even highly contaminated algae laden water.

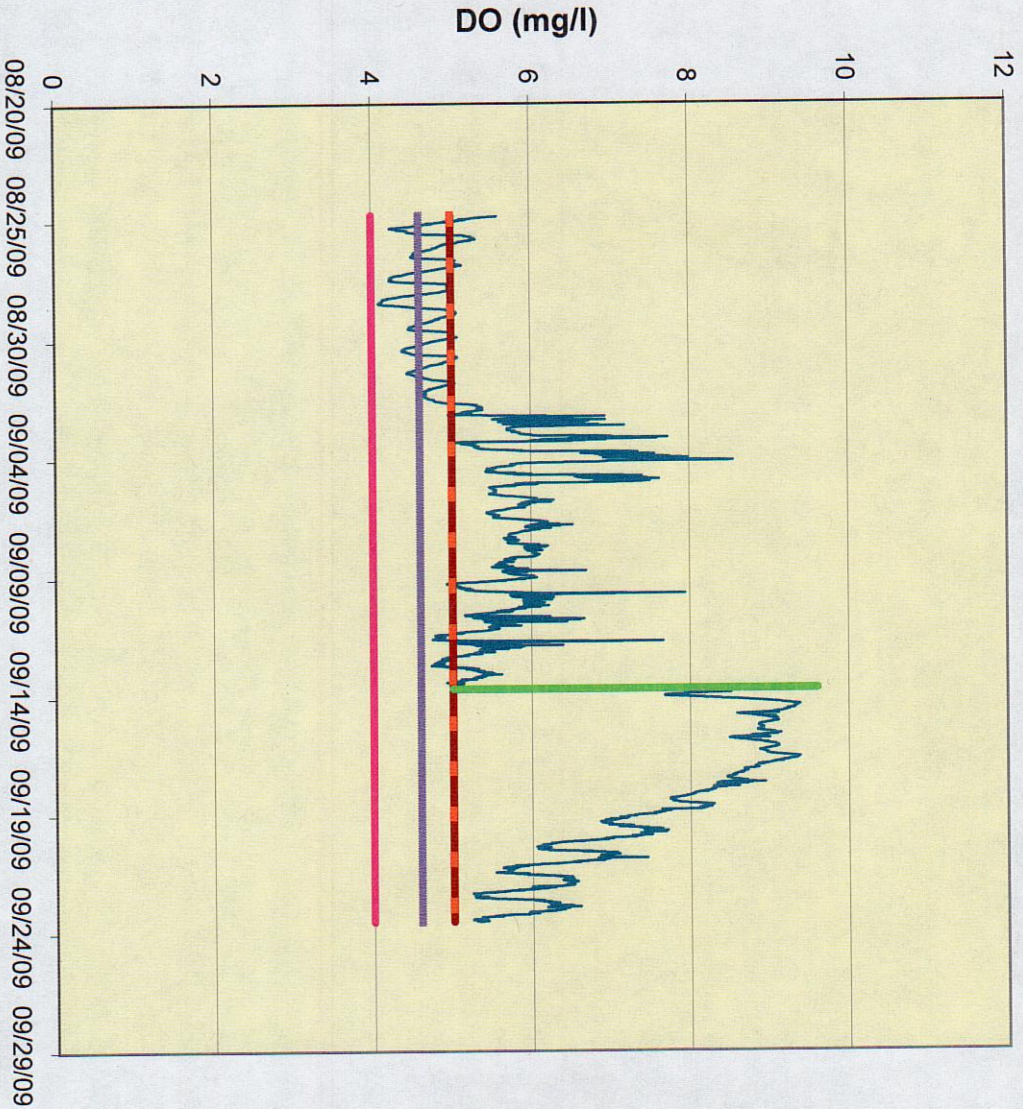
The cattle operation is subsidized by a Williamson Act Contract.

Our family and 106 year old house has been severely impacted by diversions for agriculture as have the endangered fish.

Sincerely,
Jesse Noell and Stephanie Bennett
8050 Elk River Road
Eureka, CA
95503



Dissolved oxygen v. time: Station SFM, South Fork Elk River



- Avoidance of Coho mortality, weekly average, WDOE 2002
- Severe production impairment to rearing Coho, EPA 1986
- Davis et al. (1963) 9.9 to 13.9% reduction in maximum sustained swimming speed
- - Moderate production impairment to rearing Coho, 5.0 mg/l, EPA 1986
- "Rainfall event"