

Lake Sonoma	(ppm)
5/17/00	0.595
5/17/00	0.501
5/17/00	0.513

Average 0.536333

5/18/00	0.461
5/18/00	0.559
5/18/00	0.84

0.62

Lake Mendocino	(ppm)
5/17/00	0.651
5/17/00	0.346
5/17/00	0.517

Average 0.504667

MTRL =	0.37
NAS =	0.5
FDA =	1
U.S. EPA =	0.3ppm

July 30, 2002

Craig J. Wilson
SWRCB-DWQ
P.O. Box 100
Sacramento, CA 95812-0100

Subject: Response to Comments on 2002 303(d) List Update
File: Water Quality – TMDL – 2002 303(d) List Update

Dear Mr. Wilson:

Staff of the North Coast Regional Water Quality Control Board have reviewed all comment letters (1.1 – 1.35 and 10.11) related to Region One, as well as additional data/information submitted prior to June 15, 2002, and provide the following comments. The majority of the comment letters and data/information do not change the recommendations presented in our November 16, 2001 “303(d) List Update Recommendations” staff report and the January 31, 2002 letter “Board Member Clarification to Staff Recommendations for 303(d) Listings” from Susan Warner. Our comments reflect discussions between Ranjit Gill, David Leland, Matt St. John, and review by Susan Warner. Following general comments, we comment on specific letters identified by number.

General Comments

In preparing our November 16, 2001 303(d) List Update Recommendations report, we recommended putting a waterbody/pollutant combination on a Watch List to highlight the need for additional monitoring/assessment. It was our intent that the Watch List would be separate from the 303(d) List, to be used by our office for prioritization of monitoring/assessment. The Watch List is now being forwarded to US EPA by the State Water Board as part of the 303(d) List Update process. We are not certain how the Watch List will be used in this 303(d) List Update process. In light on this uncertainty, we have reassessed our Watch List recommendations, as reflected in our comments here.

Comment Letter 1.2, 1.15, and 1.17:

Laguna de Santa Rosa & Santa Rosa Creek – Copper, Chromium, Zinc

We have reviewed available copper, chromium, and zinc water quality and sediment data, including additional (new) data submitted by the City of Santa Rosa (Letter 1.17), collected from Santa Rosa Creek and Laguna de Santa Rosa. Comparison of these data to applicable criteria (maximum contaminant level, an agricultural criterion, public health goals, aquatic life criterion, and California Toxic Rule criteria) shows that all available data are below applicable criteria. Our previous assessment did not include comparison to CTR. The City of Santa Rosa continues to monitor both Santa Rosa Creek and the Laguna de Santa Rosa for these metals, and the Regional Water Board will continue to review the results when available. Based on our review, we determine that Santa Rosa

Creek and Laguna de Santa Rosa do not warrant listing on the Watch List for copper, chromium, and zinc.

Russian River & Santa Rosa Creek – Diazinon

The City of Santa Rosa suggests that Santa Rosa Creek should not be “singled out” for listing on the Watch List for diazinon. Monitoring of pesticides in Santa Rosa, Montanzas, Piner, Peterson, Brush Creeks in November 1999 by the City of Santa Rosa were non-detect for all pesticides, including diazinon. As presented in our November 16, 2002 303(d) List Update Recommendations report, a 1997 Department of Pesticide Regulations study reported two of fifty two samples from the Russian River above the reporting limit, at concentrations above that believed to be detrimental to freshwater organisms. Based on this information, we suggest placing the Russian River watershed on the Watch List for diazinon, but not specifying individual tributaries.

Laguna de Santa Rosa – Nutrients

In our November 16, 2002 303(d) List Update Recommendations report, we were in error in referring to a US EPA “criterion” of 0.1 mg/L for total phosphorus. This total phosphorus concentration is in fact a “desired goal” for the prevention of plant nuisances in streams or other flowing waters not discharging directly to lakes or impoundments.

Comment Letter 1.9:

Our comments presented on Letters 1.2 and 1.17 apply also to Letter 1.9.

Russian River – Pathogens

The boundaries for the Monte Rio-area pathogen listing (from the confluence of Dutch Bill Creek to the confluence of Fife Creek) were identified due to suspected potential sources from the communities of Monte Rio, Camp Meeker, Guerneville Park, and Guerneville. Though the pathogen listing recommendations for the Monte Rio area and Healdsburg Memorial Beach were based on monitoring conducted only during the summer season, it is not known whether the impairment is limited to this season. Therefore, it is appropriate for the listing to apply to all seasons.

Comment Letter 1.14:

Redwood Creek – Sediment and Temperature

We wish to clarify that Regional Water Board staff have reviewed all available data and information on Redwood Creek.

Comment Letter 1.32:

Regional Water Board staff have reviewed all available temperature data for the Ten Mile River, including all data presented in the final KRIS Ten Mile (April 2002). As stated in the November 16, 2001 staff report “A determination not to list a sub-basin was reached if at least three years of monitoring data were available from more than one representative location within the sub-basin and the MWAT values from these data sets were nearly all below the 14.8°C threshold. Careful consideration was given to the location of the monitoring stations within the sub-basin, as well as the location of the sub-basin within the entire watershed, with particular attention to possible coastal influence on stream temperatures.”

A review of all of the available temperature data (1993-2001) shows that a few sub-basins have more than one monitoring location and meet the above screening criteria not to list. These sub-basins include the Little North Fork, including Buckhorn Creek, and Bear Haven Creek. There are, however, a number of other tributaries that demonstrate Maximum Weekly Average Temperatures (MWAT) below 14.8°C during at least three summers, including Mill Creek, Little Bear Haven, Booth Gulch, Ford Gulch, Smith Creek, Gulch 11, Campbell Creek, Churchman Creek, Gulch 3, Hidden Gulch, and Vallejo Gulch. These tributaries all lie within the coastal zone that experiences regular fog. No mainstem stations on the North, Middle, or South Forks meet the screening criteria not to list.

On January 23, 2002, the Regional Water Board held a public meeting to consider the actions recommended by the staff in the November 16, 2001 “303(d) List Update Recommendations”. After considerable discussion, the Board determined that insufficient information existed to support recommended listings for temperature for the Ten Mile River (as well as the Gualala River, Big River, Mad River, and Redwood Creek). The Board recommended that these waterbodies be placed on our Watch List for temperature. No new data has been presented to date that the Board would not have considered when making their recommendation.

Comment Letter 10.11:

Our comments on copper, chromium, and zinc in Santa Rosa Creek and the Laguna de Santa Rosa presented for Letters 1.2 and 1.17 also apply to Letter 10.11. The following comments apply to Comment Letter 10.11 Enclosure 3.

Lake Sonoma – Mercury

Fish tissue samples from Lake Sonoma have been analyzed for trace elements and organic chemicals under the Toxic Substances Monitoring Program. In addition to identifying the total number of samples analyzed, mercury levels in fish filets that exceed selected criteria are summarized here (presented as ppm, wet weight):

1993: three samples; 0.50, 0.88

1995: two samples; 0.57, 1.80

1999: six samples; 0.595, 0.501, 0.513, 0.461, 0.559, 0.840

The Median International Standard for mercury (edible portion, ppm, wet weight) is 0.5. The National Academy of Sciences Recommended Guideline for Freshwater Fish is 0.5 for mercury (whole fish, ppm, wet weight). The U.S. Food and Drug Administration Action Level for Freshwater Fish is 1.0 for mercury (edible portion, ppm, wet weight). The U.S. EPA Tissue Residue Criterion for mercury is 0.3 ppm. The Office of Environmental Health Hazard Assessment's guidelines for tissue levels for consumption rates of one meal per month range from 0.21 to 0.87 ppm.

Nine composite fish tissue samples were collected from Lake Sonoma in September 2001. These samples have not yet been analyzed. Barring a significant shift in the fish tissue levels from these samples, Dr. Margy Gassel of OEHHA suspects that OEHHA will issue a fish advisory for Lake Sonoma (Personal communication, June 27, 2002).

Comparison of the available fish tissue data from Lake Sonoma to the standards and criteria presented above meets listing factor #5¹ from the 1998 Clean Water Act Section 303(d) Listing Guidelines for California (August 11, 1997).

Lake Mendocino – Mercury

Fish tissue samples from Lake Mendocino have also been analyzed for trace elements and organic chemicals under the Toxic Substances Monitoring Program. In addition to identifying the total number of samples analyzed, mercury levels in fish filets that exceed selected criteria are summarized here (presented as ppm, wet weight):

1993: three samples; no exceedences

1999: three samples; 0.346, 0.517, 0.651

Six composite fish tissue samples were collected from Lake Mendocino in September 2001. These samples have not yet been analyzed. Barring a significant shift in the fish tissue levels from these samples, Dr. Margy Gassel of OEHHA suspects that OEHHA will issue a fish advisory for Lake Mendocino (Personal communication, June 27, 2002). Comparison of the available fish tissue data from Lake Mendocino to the standards and criteria presented above meets listing factor #5 from the 1998 Clean Water Act Section 303(d) Listing Guidelines for California (August 11, 1997).

¹ Data indicate tissue concentrations in consumable body parts of fish or shellfish exceed applicable tissue criteria or guidelines. Such criteria or guidelines may include SWRCB Maximum Tissue Residue Level values, FDA Action Levels, NAS Guidelines, and US EPA tissue criteria for the protection of wildlife, as they become available.

Elk, Mallo Pass, Brush, Alder, Greenwood, Cottaneva, Hardy, Juan, Howard, Dehaven, Wages, Usal Creeks, and Schooner Gulch – Sediment

All available sediment-related data for Elk, Mallo Pass, Brush, Alder, Greenwood, Cottaneva, Hardy, Juan, Howard, Dehaven, Wages, Usal Creeks, and Schooner Gulch was presented in our November 16, 2001 “303(d) List Update Recommendations” staff report. Minimal in-stream data is available for these streams; there is no additional readily available data and information.

Given the heightened level of scrutiny on the 303(d) list update process, we only recommended adding waterbodies to the 303(d) list when quantitative water quality data was available, which was not the case for the Mendocino coastal streams listed above. These streams have similar geology and timber harvest histories to other Mendocino Coast streams (Garcia, Navarro, Big, and Ten Mile Rivers) that are currently on the 303(d) List for impairments to cold water fisheries. Most of the streams listed above (Schooner Gulch, Cottaneva, Hardy, Juan, Howard, Dehaven and Wages Creeks) have high road densities relative to other Mendocino Coast streams. All of these streams provide habitat for steelhead salmon, and most provided historic habitat for coho salmon, both threatened species under the federal Endangered Species Act. In our November 16, 2001 staff report we recommended that these streams be placed to the Watch List. This decision was based on the circumstantial land management conditions and salmonid presence information described above, as well as the best professional judgement of Regional Water Board staff involved with timber harvest plan review who characterize these streams as having poor in-stream sediment conditions. The intent of placing these streams on the Watch List was to promote monitoring/assessment of in-stream sediment conditions in these streams.

Humboldt Bay & Mad River Slough – PCBs and Dieldrin

All available shellfish tissue level data for Total PCBs and dieldrin are far below FDA Action Levels.

Klamath River – Sediment

As mentioned in our November 16, 2001 “303(d) List Update Recommendations” staff report, Regional Water Board staff have suggested that beneficial uses may be impaired in portions of the mainstem Klamath (particularly in the lower Klamath River) and tributaries to the Klamath River (Beaver Creek and tributaries to the Klamath below the confluence with the Trinity River have been specifically identified) due to excessive sediment loading and instream sediment conditions. There is no readily available in-stream sediment data to corroborate this assertion; therefore, we recommended the Klamath River be placed on the Watch List for sediment.

Trinity River – Mercury

Our November 16, 2001 staff report referred to an active USGS study evaluating the impact of abandoned mines in the Trinity River watershed. Since that time additional data has been collected. Though USGS has not released a final report, preliminary data has been presented on their web site (<http://ca.water.usgs.gov/mercury/trinity/abstract.html>), as summarized here.

Game fish were collected during 2000-2001 from sites in the Trinity River watershed: 4 locations within Trinity Lake, 11 stream sites, and 3 pond sites. Of 258 total fish collected, 153 have been analyzed to date. Total mercury in 69 black bass ranged from 0.12 to 1.22 ppm wet weight. Mercury concentrations in 76 percent of the 34 black bass of “legal catch size” (≥ 305 mm in length) were ≥ 0.3 ppm wet weight, which is the US EPA water quality criterion for protection of human health. Mercury concentrations exceeded 1.0 ppm (the Food and Drug Administration action level for commercial fish) in 9 percent of the legal size black bass. All 41 trout samples from stream sites had mercury concentrations < 0.3 ppm wet weight. The Trinity County Health Services Department released an “Interim Fish Consumption Notification for Trinity River Watershed” in June 2002. Additional water quality monitoring and biota sampling is to be conducted through 2003 by USGS, with support from the North Coast Regional Water Board.

Shasta River – Sediment

All readily available sediment-related data from the Shasta River was summarized in our November 16, 2001 staff report. The mean percent fines data in the lower Shasta River showed an improving trend from 1994 to 1997. Based on this data, it was not clear that sediment conditions are causing impairment in the Shasta River.

Tule Lake/Lower Klamath Lake National Wildlife Refuge/Lower Lost River – Dissolved Oxygen and Un-Ionized Ammonia

All readily available dissolved oxygen and ammonia data from Tule Lake/Lower Klamath Lake National Wildlife Refuge/Lower Lost River was summarized in our November 16, 2001 staff report. It was our interpretation that the relatively small quantity of data, as well as the temporal and spatial distribution of the data, was insufficient to support a listing decision. Tule Lake and the Lost River are on the 303(d) List for nutrients and temperature. We are actively conducting monitoring in support of these TMDLs, including assessment of dissolved oxygen and ammonia concentrations.

Should you have any questions about these comments, please do not hesitate to call me (707-570-3762).

Sincerely,

Matt St. John
Water Resource Control Engineer

Cc: Dave Smith, US EPA IX