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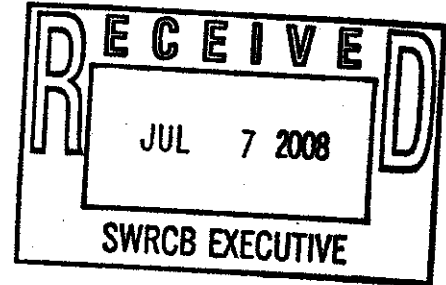
7/15/08 Bd Mtg. Item 10
Chollas Creek Metals TMDL
Deadline: 7/7/08 by 12 p.m.



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July 7, 2008

State Water Resources Control Board
1001 I Street
Sacramento, CA 95814



ATTN: Jeanine Townsend, Clerk to the Board

RE: Comment Letter – San Diego TMDL for Dissolved Copper, Lead, and Zinc in Chollas Creek

Dear Ms. Townsend:

The California Department of Transportation (Caltrans) appreciates the opportunity to comment on the Basin Plan Amendment (BPA) for the Total Maximum Daily Loads (TMDLs) for Dissolved Copper, Lead, and Zinc in Chollas Creek, a tributary to San Diego Bay. Caltrans supports the State Water Board's efforts to improve the water quality in Chollas Creek and San Diego Bay. However, we have some concerns with the estimates of metal loads to Chollas Creek and the references to land use categories in the Technical Report.

Caltrans Load Estimates

The water quality model used for this TMDL significantly overestimates the total metals load that is discharged from Caltrans' roadways. Caltrans conducted a Discharge Characterization Study and evaluated the concentrations of metals in runoff from roadways and other facilities (Caltrans, CTSW-RT-03-065).

Tables 1 and 2 present the loads in the Technical Report for the TMDL and those calculated using the discharge concentrations from the Caltrans study. Table 1 shows these values during a year with a typical annual rainfall total. Table 2 shows the loads for a year with a critical annual rainfall total. The Technical Report values were calculated as the products of the percentages in Figures 5.4, 5.5, and 5.6 of the TMDL Technical Report and the wet weather load estimates in Table 5.3 of the report.

Table 1: Loads to Chollas Creek from Caltrans Roadways During Typical Year

Pollutant	Caltrans Load (g/yr)		Technical Report Total Load * (g/yr)
	Technical Report Estimate* (% of Total)	Caltrans Estimate ** (% of Total)	
Copper	79,159 (34%)	20,438 (9%)	232,137
Lead	89,243 (46%)	10,424 (5%)	194,007
Zinc	366,083 (28%)	94,372 (7%)	1,326,407

* Values reported in TMDL Technical Report (2007)

** Based on Discharge Characterization Study and average annual rainfall of 12.6 in.

Table 2: Loads to Chollas Creek from Caltrans Roadways During Critical Year

Pollutant	Caltrans Load (g/yr)		Technical Report Total Load * (g/yr)
	Technical Report Estimate* (% of Total)	Caltrans Estimate ** (% of Total)	
Copper	335,731 (34%)	37,809 (4%)	984,549
Lead	324,365 (46%)	19,285 (3%)	705,142
Zinc	1,654,140 (25%)	174,583 (3%)	5,993,255

* Values reported in Draft Technical Report for this TMDL (2007)

** Based on Discharge Characterization Study and maximum annual rainfall of 22.8 in. recorded at Lindbergh Field, San Diego between 1990 and 2005 (SD County Water Authority, www.sdcwa.org/manage/rainfall-lindbergh.phtml) (pollutant concentration * rainfall * area)

As shown in Tables 1 and 2, the loads calculated using the characterizations reported in the Caltrans study for typical and critical years are significantly less than those loads in the Technical Report. Our estimates range from about a quarter of the load presented in the Technical Report to less than ten percent.

Non-Freeway Roads

The water quality model does not accurately account for the loads from non-freeway roadways. The land use area data used in the model was obtained from the San Diego Association of Governments (SANDAG). The layer used in the model to estimate the load discharged from freeways is classified under SANDAG land use code 4112. This includes divided roadways with 4 or more lanes, and right-of-way widths greater than 200ft. All other surface street right-of-ways are classified by SANDAG under land use code 4118. Table E-1 of the Technical Report lists the land use designations that were input to the model. The table shows that, although the freeways (land use code 4112)

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were entered into the model as a distinct land type, other roadways (code 4118) were not distinguished. The non-freeway roadways were instead input to the model under broader land use categories. Two major issues arise from this. First, the metal load from non-freeway roads cannot be evaluated separately from the land use category in which they are included. Second, actual accumulation and wash-off rates of metals from these surfaces cannot be entered into the model directly. Instead, these must be factored into the rates that are input for the broader categories. This reduces the accuracy of the load estimates for roadways.

Inconsistencies in Land Use Percentages

Table 3.2 of the TMDL Technical Report and Table E-2 of Appendix E contain different percentages for the land use area of roadways and freeways. These values are shown in Table 3, below. These values are questionable because roadways include freeways, yet the percentage for roadways is smaller. The land use area estimates are critical to the accuracy of model output and estimation of source loads. Caltrans requests that the Technical Report employ correct and consistent percentages of land uses for the allocation calculations in the report and the model.

Table 3: Land Use Percentages

Land Use	Percent of Total Area	Location in Report
Roadways	4%	Table 3.2 (pg 21)
Freeways (Roadways with four or more lanes and ROW greater than 200ft)	5.34%	Table E-2 (pg 4 appendix E)

Thank you for the opportunity to comment. If you have any questions, please contact Joyce Brenner at (916) 653-2512.

Sincerely,



G. SCOTT MCGOWEN
Chief Environmental Engineer

c: SMCGowen Division of Environmental Analysis (DEA), JBrenner - DEA,
IKarnezis - DEA, Constantine Kontaxis, Environmental - District 11

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References:

California Regional Water Quality Control Board – San Diego Region. *Total Maximum Daily Loads for Dissolved Copper, Lead, and Zinc in Chollas Creek, Tributary to San Diego Bay – Technical Report*. May 30, 2007.

Caltrans. 2003. *Storm Water Monitoring & Data Management – Discharge Characterization Study Report*. Report ID CTSW-RT-03-065.51.42. November 2003.