



SAN BERNARDINO COUNTY STORMWATER PROGRAM

A Consortium of Local Agencies

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Member Agencies

City of Big Bear Lake

City of Chino

City of Chino Hills

City of Colton

City of Fontana

City of Grand Terrace

City of Highland

City of Loma Linda

City of Montclair

City of Ontario

City of Rancho Cucamonga

City of Redlands

City of Rialto

City of San Bernardino

City of Upland

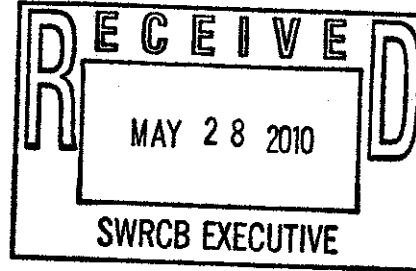
City of Yucaipa

County of San Bernardino

San Bernardino County
Flood Control District

May 28, 2010

Jeanine Townsend, Clerk of the Board
State Water Resources Control Board
1001 I St.
Sacramento, CA 95814



10(NPD)-1.03

RE: Comment Letter – 2010 Integrated Report / Section 303(d) List: Metals

Dear Ms. Townsend and Members of the State Board:

Please accept the comments, below, regarding the subject 2010 Integrated Report. These comments were prepared by Mr. Tim Moore of Risk Sciences on behalf of the stakeholders in the Santa Ana Region. To demonstrate our full support for these comments, we are submitting them independently, as the Principal Permittee, on behalf of the Co-Permittees under the recently renewed Municipal Stormwater NPDES Permit for San Bernardino County within the Santa Ana River Watershed. The Co-Permittees include the County of San Bernardino and the Cities of Big Bear Lake, Chino, Chino Hills, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Montclair, Ontario, Rancho Cucamonga, Redlands, Rialto, San Bernardino, Upland, and Yucaipa.

We strongly object to these new listings and request that you reconsider all of the referenced information and revise the 2010 list to remove them from it.

Comments

In the 2010 Integrated Report, State Board staff proposed to add the following water body-pollutant combinations to the 303(d) list:

- 1) Cucamonga Creek Reach 1 for copper and lead
- 2) Santa Ana River Reach 2 for cadmium, copper and lead
- 3) Santa Ana River Reach 3 for cadmium and lead
- 4) Santa Ana River Reach 6 for copper and lead

Although the Santa Ana Regional Water Quality Control Board had previously considered and rejected these proposed listings, State Board staff claims the Regional Board relied on an "unapproved translator" to convert the total recoverable metals data into the dissolved form. We disagree with this statement. According to the State Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (SIP):



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"The translator shall be the U.S. EPA conversion factor that applies to the dissolved aquatic life metals criteria as specified in the CTR (i.e. the dissolved criterion/objective would be divided by the applicable U.S. EPA conversion factor to calculate a total recoverable criterion) unless: (A) the discharger, in the permit application, (1) commits to (a) completing a defensible site-specific translator study and (b) proposing a dissolved to total recoverable translator to the RWQCB, and (2) describes the methods to be used in developing the translator; and (B) the discharger, within a time period specified by the RWQCB not exceeding two years from the date of issuance/reissuance of the permit, submits to the RWQCB (1) the proposed translator, and (2) all data and calculations related to its derivation."

SIP; 2000; Section 1.4.1; pg. 12

In 1994, the Regional Board adopted site-specific water quality objectives for copper, cadmium and lead for the Santa Ana River and several of its major tributaries.¹ At the public hearing to consider the related Basin Plan amendment, local stakeholders agreed to develop and submit site-specific translators for each of the aforementioned metals as a condition of approval. The study was completed in May of 1994 and the site-specific translators have been in continuous use by the Regional Board since then.²

Because the California Toxics Rule (CTR) was enacted several years later, a special provision was added to the State Implementation Plan authorizing the use of site-specific translators that pre-date adoption of the SIP:

"Alternatively, the RWQCB may consider applying a previously approved site-specific translator or translator based on a study completed prior to the adoption of this Policy if the RWQCB believes the translator adequately reflects existing conditions (including spatial and/or seasonal variability) in the areas of the water body affected by the discharger's effluent."

SIP; 2000; Section 1.4.1; pg. 13

This provision was added at the specific request of the Santa Ana Regional Board. At the time the CTR was adopted, staff from the State Board and U.S. EPA asked whether local stakeholders in the Santa Ana region would prefer to be governed by the CTR or by the previously approved site-specific objectives (SSOs). Permittees unanimously preferred the SSOs unless there was some assurance that they could continue to rely on the site-specific

¹ California Regional Water Quality Control Board – Santa Ana Region. Resolution 94-1: Resolution Adopting the Updated Water Quality Control Plan for the Santa Ana River Basin (8). March 11, 1994. Subsequently approved by the State Water Resources Control Board as Resolution No. 94-60 on July 21, 1994.

² Risk Sciences. Final Report for the Santa Ana River Use-Attainability Analysis; Volume 10: Calculation of final total-to-dissolved metal ratios to translate site-specific water quality objectives into NPDES effluent limits. May, 1994. (previously submitted to the State Board)

translators that were already in widespread use. The special provision on page 13 of the SIP was intended to provide that assurance.

As noted earlier, the site-specific metals translators have been in continuous use for the last 16 years. And, at no time has the State Board or U.S. EPA questioned or commented on this long-standing implementation practice. The site-specific translator study was based on a very large data set that was deemed representative of the Santa Ana River system. Spatial and seasonal variability were both taken into account as required by the SIP.

Results from the study clearly show that only a small fraction of the total recoverable metal actually measured in the local streams is in the dissolved form. Thus, it was reasonable and appropriate for the Regional Board staff to rely on these translators when using total recoverable metals data to assess attainment of water quality objectives that are expressed in the dissolved form.³ The subsequent analysis performed by State Board staff is based on a conservative assumption that is unnecessary and obsolete in the Santa Ana watershed.

In the 2010 Integrated Report, State Board staff discloses that they re-evaluated the water quality data from the Santa Ana River using the "default California Toxic Rule (CTR) translators that are designed to be used with CTR criteria." This is inappropriate for two reasons:

First, while the translators may have been designed for general use with CTR criteria, they were never intended to replace the site-specific translators that had already been developed and were in common use throughout the Santa Ana region more than 5 years before the SIP was adopted.

Second, the translators referenced by State Board staff are, in fact, simply the "correction factors" previously recommended in EPA's guidance.⁴ These correction factors are used to estimate the fraction of total recoverable metal that was likely to be in the dissolved form in the laboratory studies EPA used to develop the national metals criteria. Because the laboratory experiments were performed using metal salts that were designed to dissolve in water, the resulting ratio is not necessarily representative of what one expects to see in most freshwater streams. Using EPA's correction factor as a generic default translator for all total recoverable metals data is unnecessary where comprehensive studies have been performed to develop more appropriate site-specific estimates. Such a study was done in for the Santa Ana watershed and accepted by the Regional Board quite some time ago.

³ It should be noted that the Regional Board elected not to use the site-specific translators in various mountain streams. The studies done in 1994 only used data from valley streams to calculate appropriate metals translators. The chemistry of mountain streams was believed to be sufficiently different so as to call into question the validity of using previously-approved translators for high elevation freshwaters. This illustrates the level of care and consideration given by Regional Board staff as the translators were used during the 303(d) listing evaluation.

⁴ U.S. EPA. Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria; Attachment #2: Guidance Document on Dissolved Criteria – Expression of Aquatic Life Criteria. October 1, 1993. See also U.S. EPA's Interim Guidance on Interpretation and Implementation of Aquatic Life Criteria for Metals. May, 1992. See also U.S. EPA, The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion. EPA 823-B-96-007; June, 1996.

Neither the CTR or the SIP require any additional approval from the State Board or U.S. EPA because the use of site-specific translators does not constitute a standards change. Water quality objectives for cadmium, copper and lead continue to be expressed in the dissolved form. The translators merely help us understand and interpret the available monitoring data correctly when criteria are expressed in one form but measured in another.

Just as it is acceptable to use site-specific hardness values to calculate an appropriate effluent limit, it is reasonable to consider the site-specific translators when using total recoverable metals data to assess compliance with dissolved standards. The same sort of analysis is performed when adjusting total ammonia data, based on site-specific pH and temperature conditions, to determine compliance with an un-ionized ammonia objective. By expressing certain water quality objectives as equations, the State Board and U.S. EPA have acknowledged that the Regional Board has broad legal discretion to account for various chemical properties without needing to amend the Basin Plan on each occasion.

In April of 2009, at a public workshop to consider the 303(d) listings proposed by Regional Board staff, there was a strong consensus that, whenever possible, it would be preferable to rely on dissolved data rather than using metals translators. Therefore, local stakeholders offered to collect sufficient in-stream data to perform a more direct analysis prior to the 303(d) review scheduled for 2012. The Regional Board accepted this proposal because, in part, the stakeholders also agreed that the three year study period would not delay the final delivery date (2019) for a TMDL should the higher quality monitoring data indicate that the dissolved metals objectives were being exceeded. This is illustrative of the collaborative, win-win approach that is routinely used by the Santa Ana Regional Board to resolve controversial issues based on the best available science.

At present, since there is no dissolved data to assess compliance with the dissolved standards, the State Board should declare that there is insufficient information to make a listing determination. Nothing in federal law or regulation requires the State Board to apply worst-case assumptions in lieu of a previously authorized site-specific metals translator. Doing so can be construed as an act of discretionary state authority and local stakeholders will seek reimbursement of all regulatory costs attributable to this unfunded state mandate.

We ask the State Board to consider that U.S. EPA's decision to develop and implement water quality criteria for dissolved metals was partially in response to a formal petition for rule-making submitted by the Santa Ana River Discharger's Association (SARDA) in 1991. EPA approved SARDA's petition when the National Toxics Rule and the interim metals guidance were published in 1992. From 1990 to 1994, local stakeholder's invested more than \$2 million in state-of-the-art scientific studies responding to an ill-considered 304L listing. State Board staff's recommendation to add these same waterbodies to the 303(d) list does not appear to reflect the Regional Board's previous finding that aquatic communities are not adversely affected by the ambient concentration of trace metals in the Santa Ana River and that there is, in fact, a considerable safety factor available for cadmium, copper and lead.⁵

Finally, it should be noted that the proposed 303(d) listings for metals rely almost exclusively on water quality data collected by flood control agencies during storm events. Such data is not

⁵ Regional Water Quality Control Board - Santa Ana Region (8). Water Quality Control Plan for the Santa Ana Region (8). Jan., 1995 (updated Feb., 2008); pg. 4-13.

representative of water quality under the normal baseflow conditions which typify the Santa Ana River during the 340+ days per year when it is not raining. Extrapolating from this limited and atypical data set is inconsistent with the state's listing guidance as it fails to account for the intrinsic seasonal variability. In addition, the concentration of Total Suspended Solids (TSS) and Total Organic Carbon (TOC) are much higher in stormwater runoff. These factors significantly increase the site-specific translator ratio⁶ and reduce the potential toxicity of some metals to aquatic organisms.⁷

The Regional Board's determination that the Santa Ana River and its tributaries should not be listed for certain trace metals is based on years of research, thousands of pages of scientific documentation and an intimate understanding of water quality in the area. Before over-ruling the Regional Board's recommendations, State Board should review the detailed administrative records associated with the 1994 Basin Plan amendment (including the hearing transcripts) and the numerous NPDES permits issued since then. These documents clearly demonstrate that the Regional Board staff used an approved metals translator to conduct their recent water quality assessment.⁸

Sincerely,



for MATT A. YEAGER, D. Env, Stormwater Program Manager
San Bernardino County Flood Control District

MAY:nh/Comments_State Water Res Ctrl Bd_2010 Integrated Report-303d Metals

Cc: Gerard J. Thibeault, CRWQCB – Santa Ana Region
Michael Adackapara, CRWQCB – Santa Ana Region
Jason Uhley, Riverside County Flood Control and Water Conservation District, via e-mail
Tim Moore, Risk Sciences, via e-mail
Naresh Varma, EMD
GMB/ARI Reading File

⁶ U.S. EPA. "Technical Guidance Manual for Performing Waste Load Allocations; Book II: Rivers and Streams" EPA/440/4-84/002.

⁷ U.S. EPA. Aquatic Life Ambient Freshwater Quality Criteria - Copper. EPA-822-R-07-001; Feb., 2007.

⁸ The aforementioned documents and transcripts have been previously submitted and are already in the State Board's possession. Thus, the same documents and transcripts are included in this comment letter by reference rather than by resubmission.