

March 30, 2017

California Regional Water Quality Control Board  
Los Angeles Region  
ATTN: Jun Zhu  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

Email: [losangeles@waterboards.ca.gov](mailto:losangeles@waterboards.ca.gov)

Subject: Comment Letter – Revisions to the Los Angeles Region 2016 (303(d) List

Dear Mr. Zhu:

**TECS Environmental** is pleased to comment on the Regional Board's proposed 2016 303(d) list revisions.

Because there are almost 900 listing revisions for water quality segments in the Los Angeles County Basin, it would be impossible to address each one. Therefore, I will restrict my comments to general issues.

To begin with, I am sure that a number of MS4 Permittees and industrial dischargers will be pleased to know that many of the pollutants proposed on the 303(d), which are current TMDLs or are scheduled to become ones, have been placed on the “de-list” or placed on the “do not list” category. Most conspicuous are metals for Reach 2 of the Rio Hondo<sup>1</sup> and Reach 3 of the San Gabriel River<sup>2</sup>. Although the 2010 303(d) list did not list any of these reaches for metals-related impairment, they were nevertheless required to comply with metals TMDLs (Los Angeles River Metals TMDL for Reach 2 of the Rio Hondo and the San Gabriel River Metals TMDL for Reach 3 of the San Gabriel River). The 2016 303(d) list proposes to rectify this mistake by placing both of these reaches under the “do not list” category for copper, lead, selenium and zinc, which form the basis for both of the TMDLs.

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<sup>1</sup>Alhambra (partially), Arcadia, Bradbury, Duarte, El Monte, Irwindale (partially), Monrovia, Montebello (partially), Monterey Park, Pasadena (partially), Rosemead, San Gabriel, San Marino, Sierra Madre, South El Monte, South Pasadena (partially) and Temple City.

<sup>2</sup>Azusa, Baldwin Park, Claremont, Covina, Duarte (partially), El Monte, Glendora, Irwindale, La Verne, Pomona, South El Monte, and West Covina.

However, the proposed 2016 303(d) list did not place any of the Arroyo Seco reaches on the “do not list.” Like Reach 2 of the Rio Hondo and Reach 3 of the San Gabriel River, Arroyo Seco Reaches 1 and 2 were not on 2010 303(d) list, nor were they on the 2012 303(d) list, which did not make it to Los Angeles Basin Plan as an amendment. Nevertheless, the Los Angeles MS4 Permit subjects MS4 Permittees by extending the Los Angeles River Metals TMDL to Arroyo Seco reaches. The 2016 303(d) list should place these reaches on the “do not list” category for metals.

Recommendation: place Arroyo Seco Reaches 1 and 2 on the “do not list” for any metal.

## I. CTR and 303(d) Listing Policy

Nevertheless, additional pollutants should be considered for exclusion because they were not established in accordance with the California Toxics Rule (CTR) adopted in 2000; and/or did not comply with the *Water Quality Control Policy for California's Clean Water Act Section 303(d) List* (Listing Policy), which was adopted in 2004.

- *California Toxic Rule*

CTR was adopted to provide a mathematical method for establishing ambient (dry weather) water quality standards for toxics necessary to protect beneficial uses of receiving waters. The LAR-MTMDL, however, along with other TMDLs, does not comply with CTR in two significant respects.

First, the TMDL calculates numeric water quality standards/TMDLs for both wet weather and ambient receiving water conditions instead of only on ambient. The LAR-TMDL misinterprets CTR by claiming EPA did not differentiate between wet and dry weather conditions when establishing metals and toxics limitations. There is nothing in CTR that supports that view. CTR makes it clear that its purpose is to establish ambient water quality standards: *This final rule establishes ambient water quality for priority toxic pollutants.* USEPA defines ambient as:

*Natural concentration of water quality constituents prior to mixing of either point or nonpoint source load of contaminants. Reference ambient concentration is used to indicate the concentration of a chemical that will not cause adverse impact to human health.*

In other words, ambient is the normal reference condition of a receiving water. This is also the clear understanding of the Regional Board's Surface Water Ambient Monitoring Program (SWAMP). MS4 and other point source stormwater (wet weather) outfall discharges, using sampling and analysis results, are measured against the ambient target for a pollutant established by CTR. For example, suppose a copper limitation is set at 37 micrograms per liter for a given water body. This limit is required to protect fish. Persistent exceedances of the limit based on outfall monitoring would necessitate a revision to the MS4 Permittee's stormwater management program.

Second, CTR requires a hardness parameter (calcium carbonate) to make chemical water quality analysis of metals and toxics more accurate. Generally, the higher the hardness value the higher the toxic/metal pollutant expressed as a numeric limit. And, the higher the limit there less difficult it is to meet. The metals and toxics TMDLs rely on differing hardness values. For the Dominguez Channel/Harbor Toxics TMDL an average hardness value of 50 mg/l is used. For Ballona Creek hardness values for setting the wet weather TMDLs metals are varied, based on an average or median hardness that ranged from 77 mg/l to 108 mg/l. For dry weather, a median hardness value of 300 mg/l was applied. As mentioned, CTR is expressed exclusively as ambient and not wet weather standards. Thus the 77 mg/l to 108 mg/l hardness values relative to wet weather are meaningless. For dry weather, a median value of 300 mg/l was used. For the Los Angeles River Metals TMDL variable hardness values were also used for wet and dry weather. The same is true to the San Gabriel River Metals TMDL. In any case, CTR requires actual hardness value to be determined at the time samples of metals/toxic pollutants are taken.

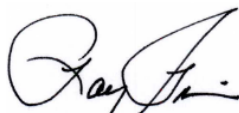
Thus, in the final analysis, each of the metals/toxics pollutants that was placed on the “list” or “do not de-list” category should be placed on the “de-list” or “do not list” category because they were not established in ambient terms only and failed to use an actual hardness value.

- *303(d) Listing Policy*

The Listing Policy was adopted to provide a statistical method to determine how many water quality samples that exceed a water quality standard are required to place a pollutant on the 303(d) list. That method is a binomial distribution based on the rejection of a null hypothesis measured against sample sizes (see attachment #1). A review of the 2016 303(d) list fact sheets reveals that many of the metals and toxics placed on previous 303(d) lists did not conform to the Listing Policy. Those that do not should be placed on the “de-list” or “do not list” category.

This concludes my comments. Should you have any questions or require additional information please let me know.

Sincerely,



Ray Tahir

## Attachment #1

TABLE 3.1: MINIMUM NUMBER OF MEASURED EXCEEDANCES NEEDED TO PLACE A WATER SEGMENT ON THE SECTION 303(D) LIST FOR TOXICANTS.	
<i>Null Hypothesis: Actual exceedance proportion &lt; 3 percent. Alternate Hypothesis: Actual exceedance proportion &gt; 18 percent. The minimum effect size is 15 percent.</i>	
Sample Size	List if the number of exceedances equal or is greater than
2 – 24	2*
25– 36	3
37– 47	4
48– 59	5
60– 71	6
72– 82	7
83– 94	8
95– 106	9
107– 117	10
118– 129	11

\*Application of the binomial test requires a minimum sample size of 16. The number of exceedances required using the binomial test at a sample size of 16 is extended to smaller sample sizes.

For sample sizes greater than 129, the minimum number of measured exceedances is established where  $\alpha$  and  $f3 < 0.2$  and where  $|\alpha - f3|$  is minimized.

$\alpha$  = Excel® Function BINOMDIST(n-k, n, 1 – 0.03, TRUE)

$f3$  = Excel® Function BINOMDIST(k-1, n, 0.18, TRUE)

where n = the number of samples,

k = minimum number of measured exceedances to place a water on the section 303(d) list,

0.03 = acceptable exceedance proportion, and

0.18 = unacceptable exceedance proportion.

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