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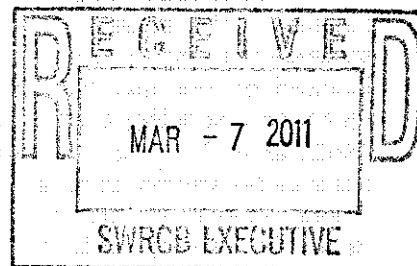
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March 7, 2011

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814



Dear Chairman Hoppin and Members:

Subject: Comment Letter - Los Angeles River Metals TMDL Revision

The City of Los Angeles, Bureau of Sanitation (Bureau) appreciates the opportunity to provide comments on the *Proposed Approval of an Amendment to the Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles And Ventura Counties (Basin Plan) to Revise the Total Maximum Daily Load (TMDL) for Metals in the Los Angeles River and Tributaries.*

The Bureau was very engaged in the process of developing the amendment to the TMDL and supports its substantive provisions. The City of Los Angeles, along with the City of Burbank, prepared the Los Angeles River Copper Water Effects Ratio (WER) study that is the foundation of the TMDL amendment. The proposed TMDL and revised wasteload allocations (WLAs) are protective of aquatic life and consistent with USEPA guidance. The copper WER study was conducted, at an approximate cost of \$1,000,000, to provide the Bureau with the flexibility to operate the plants in the most efficient and effective manner. The amended WER-based WLAs will insure that future copper limits are met if plant operations are modified to meet limits for current and future constituents of concern. Overall, we view the TMDL amendment as a positive step forward in utilizing the best available science for water quality regulatory decisions.

Given our general support for the Regional Water Board proposal, the Bureau regrets that we must ask the State Water Board to remand the proposed amendment to the Regional Water Board to remove a provision that unnecessarily and ill-advisedly restricts the discretion of permit writers in developing future effluent limitations to implement the TMDL. Specifically, the proposed amendment includes two footnotes that limit wet and dry weather mass and concentration based effluent limitations to current treatment performance. (See footnote 2, page 8 and footnote 2, page 10.)¹ As discussed below, we believe the footnotes unnecessarily tie

¹ The Bureau would support simply deleting the two footnotes and adopting the TMDL. However, the Water Code specifies that the State Water Board's options with regard to a proposed Basin Plan amendment are limited to adoption or remand. (Water Code §13245.)



the hands of permit writers, may discourage or penalize water recycling and water conservation, and are inconsistent with EPA regulations and guidance.

Effluent Limitations Must be Consistent with Adopted WLAs

Federal regulations require that effluent limitations be consistent with any WLAs applicable to the discharge, as well as other applicable provisions of state and federal law. (40 C.F.R. § 122.44(d)(1)(vii)(B).) In the proposed TMDL, the WLAs for POTWs are properly defined as the concentration or mass value multiplied by the scientifically valid water-effect ratio (WER) of 3.96. Future water quality based effluent limitations (WQBELs) for metals do not have to be identical to this equation, but they must implement the WLAs in a manner consistent with the *assumptions* and requirements underlying the TMDL. (*Ibid.*) Here, the proposed TMDL is founded on the fact that copper, lead and zinc criteria concentrations are dependent on hardness and a WER, which are "built into" the California Toxics Rule. (Proposed Amended TMDL at p. 2.) It is inconsistent with this fundamental premise to artificially restrict effluent limitations—without consideration of the specific circumstances and facts—to a performance-based, rather than water quality based, value. Federal regulations expressly allow an exception to anti-backsliding strictures for calculation of WQBELs that implement WLAs. (33 USC §131(d)(4).) Moreover, permitted discharges are subject only to such requirements as are "necessary to meet water quality standards." (33 USC §1311(b)(1)(c).) We recognize that Permit writers have the ability to exercise best professional judgment to develop effluent limitations, and may include an evaluation of treatment plant performance at the time of permit reissuance. This is a very different matter from wholly precluding a WQBEL that implements the WLA in a manner other than current performance.

The Footnotes Restricting Effluent Limitations May Discourage Water Conservation, Water Recycling and Watershed Enhancement

Certain activities vital to sustainable water supplies for California such as water recycling and water conservation can result in higher concentrations of some constituents in wastewater. (See *Policy for the Implementation of Toxic Standards for Inland Surface Waters Enclosed Bays and Estuaries of California* (2005) at p. 34 (noting that an exception to priority pollutant criteria may be needed to accommodate water conservation or water reclamation).) As the TMDL acknowledges, discharges of metals in higher concentrations or loads than current discharges would be protective of beneficial uses and would not adversely affect aquatic life. It is possible that future water conservation or recycling efforts may increase the levels of metals in the water discharged. It is unclear how the footnotes would be interpreted in this circumstance, since the efficiency of metals removal at POTWs is somewhat variable, but the language proposed by the Regional Water Board in the footnotes has the potential to penalize the City for increased conservation and recycling. Permit writers making decisions regarding future effluent limitations should be able to consider and weigh the benefits of these programs in determining the appropriate limitations, consistent with federal and state law. There is no justification in the record for constraining future effluent limitations in this manner.

To support the community's long-term vision of enhanced habitat in the Los Angeles River, it is essential to establish water quality objectives and associated requirements that reflect and maintain the true beneficial uses. Implementation of the TMDL incorporating the WER will ultimately help the community set priorities for different implementation actions, such as stream habitat enhancement, Best Management Practices (BMPs) to reduce urban runoff copper loads, and POTW upgrades if necessary to comply with future effluent limitations. Implementation of the WER is really a "win-win" situation, which will provide the level of protection of needed to sustain aquatic life in the Los Angeles River, and will also allow POTWs to comply with their

copper limitations without wasting millions of dollars on unnecessary treatment process or facilities.

The Footnotes Restricting Effluent Limitations Could Have Unintended Adverse Effect

Allowing the permit writers discretion in implementing the WER-based WLAs will not result in a significant increase in concentration or mass of copper discharged. On the other hand, restricting the effluent limitations to current performance will result in the Bureau violating permit effluent limits 5% of the time (if limits are based on the 95th percentile of performance). This will result in increased penalties in the form of mandatory minimum penalties MMPs and possible administrative civil liability even though the WER adjusted targets are not exceeded meaning that discharges were not causing an impairment in the environment.

Moreover, the restrictions on effluent limitations and mass discharges may have the unintended effect of de-rating the capacity of the City's treatment plants with no corresponding water quality benefit. The WLAs were calculated based on the permitted capacities of the DC Tillman and LA Glendale (LAG) plants, which means that the plants could discharge higher metals concentrations and mass without adversely affecting beneficial uses. However, DC Tillman is currently discharging at about half of its 80 MGD design capacity. Constraining the limitations to performance at the time of permitting for both mass and concentration, could preclude the use of DC Tillman's additional capacity which was currently upgraded with nitrification/de-nitrification facilities. There is no basis for including this constraint on the City's facilities at this time when future needs and conditions are unknown and increased loading from the City's plants below the WER adjusted WLAs do not negatively affect beneficial uses.

The Footnotes Restricting Effluent Limitations Do Not Allow Sufficient Operational Flexibility to Ensure the Highest Quality Effluent

Municipal wastewater treatments plants are complex systems, involving multiple biological and chemical processes. Treatment plant performance is not tailored to meet a limit for a single pollutant or group of pollutants such as metals. In some cases, adjustments must be made to optimize processes for one pollutant that may lead to changes in the levels of other pollutants. We are concerned that the footnote may remove the permit writer's discretion to adjust copper limits (which would still be far lower than the numeric objectives resulting from the WER) even where such incremental change would allow the plant to achieve removals of other pollutants to meet WQBELs needed to protect beneficial uses. Both the LAG and DC Tillman plants provide an example of this potential concern.

In 2007, the City of LA initiated nitrification/denitrification (NdN) treatment at the LAG and DC Tillman plants to meet ammonia limits. These NdN facilities are designed to address the entire plant capacity; however due to disinfection requirements and in order to meet plant's Concentration-Time (CT) requirements, the plant has treated less flow than the design capacity. Since the initiation of NdN treatment, copper removal efficiencies at the plants have increased, resulting in lower plant effluent copper concentrations. However, the increase in removal efficiencies and decrease in concentrations are likely attributable to the Mean Cell Retention Time (MCRT) currently utilized to meet ammonia limits combined with the treatment of lower flow volumes as compared to design flow capacity. The less than design flows treated at DC Tillman have resulted in additional system and tank capacity that has allowed the plant to operate at a higher efficiency, and handle the higher biomass under aeration more effectively (i.e., longer MCRT) and prevent and avoid potential wash out.

However, the resultant increase in copper removal efficiency and decrease in concentrations is not expected to be sustainable as:

- 1) The LA River Ammonia site-specific objective (SSO) demonstrating that ammonia concentrations could be increased in the LA River without negatively affecting beneficial uses was approved by the State and USEPA. The implementation of the ammonia SSO in future permits will modify the plants' ammonia discharge limits and allow the plants to modify the NdN process to be more efficient (i.e., reduce chemical and energy usage and green house gas emissions associated with meeting current limits). It is expected that refinement of the NdN process will reduce the MCRT and have the effect of reducing copper removal efficiency and increase final effluent concentrations.
- 2) In the case of DC Tillman, the plant has been operating at less than design flow to meet plant's CT disinfection requirement. When DC Tillman reverts back to its ultimate design capacity in the future, the system capacity may not be available to operate at this high efficiency and is expected to affect final effluent copper concentrations.
- 3) Plant process will likely change in the future as additional constituents identified as problematic in the environment (i.e., constituents of emerging concern) are incorporated into permits. As these constituents are identified, the City will look to modify existing processes to meet associated limits while also meeting existing limits. These changes in processes will have the effect of changing effluent concentrations.
- 4) Due to the water conservation efforts and depending on future water supply issues and challenges facing the Southern California region, it is possible that the source water supply in plant service areas could change, potentially resulting in higher copper loading to the plant.

The aforementioned operational challenges are at the core of why the Bureau initiated the copper WER study that forms the basis of the amended TMDL. The Bureau carefully operates the plants to meet all limits and completing the WER study was fundamental to providing the Bureau with the flexibility to operate the plants to meet those limits. The Bureau strives to operate the plants in the most efficient manner while meeting all criteria to protect beneficial uses. Limiting future copper limits based on current performance removes the flexibility the Bureau needs to adjust operations to address all criteria. The amended WER-based WLAs, without constraints based on current performance, will insure that future copper limits are met if plant operations are modified to address other constituents or due to changes in influent flows. As such, there is no need to tie the hands of future permit writers, who should retain flexibility to take into account all relevant conditions and operational strategies in establishing effluent limitations consistent with the assumptions and requirements of the WLAs.

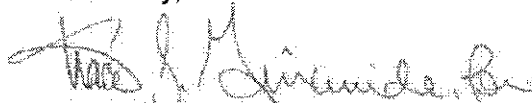
Recommendation

As an active participant in the development of the scientific basis for the WER as well as the proposed TMDL Amendment, the Bureau is supportive of its substantive provisions. The Bureau's concern is that the footnotes constrain the development of future effluent limitations beyond the legal requirement that effluent limitations be consistent with the assumptions and requirements of the WLA. This issue can be addressed simply and promptly. We recommend that the State Water Board remand the TMDL to the Regional Board with instructions to remove the aforementioned footnotes and resubmit the TMDL to the Board for approval.

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Thank you for your consideration of our comments. If you have any questions about the Bureau's comments, please contact H.R. (Omar) Moghaddam, Division Manager of the Regulatory Affairs Division at (310) 648-5423.

Sincerely,



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