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the City of Los Angeles

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February 15, 2013



Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
P.O. Box 100, Sacramento, CA 95812-2000  
1001 I Street, 24th Floor, Sacramento, CA 95814

Sent by email to [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

Dear Ms. Townsend:

Subject: Comment Letter – (1) Santa Monica Bay Beaches; (2) Marina del Rey Harbor Mothers' Beach and Back Basins; (3) Los Angeles Harbor, Inner Cabrillo Beach, and Main Ship Channel; (4) Ballona Creek, Ballona Estuary, and Sepulveda Channel; (5) Malibu Creek and Lagoon; and to amend Chapter 3 to modify the Implementation Provisions for Water Contact Recreation Bacteria Objectives

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to comment on the reconsideration of implementation provisions for bacteria water quality objectives and total maximum daily loads (TMDLs) for the (1) Santa Monica Bay Beaches; (2) Marina del Rey Harbor Mothers' Beach and Back Basins; (3) Los Angeles Harbor, Inner Cabrillo Beach, and Main Ship Channel; (4) Ballona Creek, Ballona Estuary, and Sepulveda Channel; (5) Malibu Creek and Lagoon. LADWP believes that the impairments to the affected waterbodies need to be addressed properly in order to protect all beneficial uses of the area; however, LADWP has a concern.

LADWP's primary concern with the proposed implementation measures and TMDL revisions relates to the application of a reference beach approach to samples collected at the outlet of a storm drain. In particular, LADWP occasionally must discharge water from a reservoir or other primary discharge location; it flows from the primary discharge location to the receiving water via a storm drain system. While LADWP has some control over the quality of the water within the reservoir or at the primary discharge location, LADWP does not and cannot control any changes in water quality that may occur within the storm drain system.

A broad and still-accumulating body of research indicates that indicator bacteria, which are living organisms, may reproduce within storm drains and within natural systems,

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such that the concentrations at the outlet of the storm drain system are not indicative of concentrations in inflows to the system. For example, the City of Newport Beach and the Orange County Healthcare Agency conducted synoptic studies that indicated that biofilms are present in street gutters and storm drains (Skinner et al., 2010). Bacteria replication occurs readily in biofilms, which supply nutrients and water and which offer protection from microbial predators, ultraviolet light, drying, and disinfectants (see, e.g., Costerton et al., 1995; Coghlan 1996; Donlan 2002; Donlan & Costerton 2002). The presence of biofilms in storm drains, gutters, and other conveyances are associated with bacteria growth and may be responsible for exceedances of bacteria objectives in water flowing out of the storm drain system. See also, for example, Grant et al. (2009), which showed that about half or more of the indicator bacteria present in a southern California watershed and receiving waters were from non-fecal sources, such as growth on decaying plant material, and Grant et al. (2004).

In addition, natural sources such as birds contribute indicator bacteria within watersheds, and other types of wildlife (e.g., raccoons, rats) may live within storm drains and contribute to bacteria loads at the outlet of the storm drains. See, for example, Geldreich & Kenner 1969; Hussong et al. 1979; Alderisio et al. 1999; Ahn et al. 2005; Griffith et al. 2010; Noble et al. 2004; Tiefenthaler et al. 2008. In addition, several undeveloped watersheds in southern California have long data records and show routine exceedances of indicator bacteria objectives, even in dry weather conditions, even in runoff from undeveloped watersheds, and in watersheds of a wide range of sizes (see, e.g., data from southern Orange County coastal watersheds as presented in Flow Science 2005). These data indicate, as does information in the Regional Board's staff report, that Leo Cabrillo Beach/Arroyo Sequit reference beach experiences fewer exceedance days than other, perhaps more suitable reference beaches.

Appendix C to Flow Science 2005 also includes a study demonstrating that even water treated by filtration/disinfection (specifically, multimedia filtration and ultraviolet (UV) disinfection) or wetlands experiences an increase in indicator bacteria levels within a few dozen feet of the point where treated water is discharged to the storm drain system. This study found "a large increase in [indicator bacteria] levels in the approximately 35 feet between the [treatment] unit discharge and the storm drain monitoring site ... [these data] suggest that rapid re-growth has taken place in the water column, or re-infection has occurred from sloughing or resuspension of bacteria from immersed channel-side vegetation, organic debris and/or sediments."

In the case of bacterial TMDLs, monitoring conducted at the outlet from storm drains or at the end of the MS4 pipe, within the wave wash, is useful in providing information to the MS4 Permittees about potential sources of bacteria within the storm drain itself or within other flows that are being discharged into the MS4. However, sometimes clean water discharged into a MS4 or co-mingled with other contaminated discharges may

give the false impression that the discharger is in violation when, in fact, the exceedance is due to regrowth or other sources within the conveyance to the ocean.

For these types of monitoring, LADWP suggests that sample results collected at the outlet of a storm drain should not be used to assess permit compliance for discharges upstream, or TMDL compliance (unless the sample point happens to coincide with a TMDL compliance point designated by a Coordinated Monitoring Plan). Moreover, it should be clarified that bacterial contamination or any other contamination that occurs within the MS4 is not a violation of a discharger who contributes clean water to the MS4 system upstream of the point of MS4 discharge; the discharger should be responsible for the water at the entry point to the MS4, not at the outfall to the ocean.

For this reason, LADWP respectfully suggests that the SWRCB should add an additional finding to the adopting resolution to clarify this point. The language of this additional finding could read as follows:

*"#. In recognition of sources of fecal indicator bacteria that may occur within MS4 systems, and sources including wildlife and bacteria regrowth that may be present within such systems, compliance for discharges subject to an NPDES permit that regulates discharges prior to the point of entry to an MS4 system shall be assessed by measurements made in the discharge water at or before the point at which the discharge enters the MS4 system."*

If there are any questions, please contact Mr. Clayton Yoshida of the Wastewater Quality and Compliance Group at (213) 367-4651.

Sincerely,



Katherine Rubin  
Manager, Wastewater Quality and Compliance

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Submitted by email to [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

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- Ms. Deb Smith, Los Angeles RWQCB
- Mr. Ivar Ridgeway, Los Angeles RWQCB
- Mr. Kangshi Wang, Los Angeles RWQCB
- Mr. Man Voong, Los Angeles RWQCB
- Mr. Clayton Yoshida

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