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ALEXANDER E. HELOU
ASSISTANT DIRECTORS

NEIL M. GUGLIELMO
ACTING CHIEF FINANCIAL OFFICER

WATERSHED PROTECTION DIVISION
1149 SOUTH BROADWAY, 10TH FLOOR
LOS ANGELES, CA 90015
TEL: (213) 485-0587
FAX: (213) 485-3939

December 24, 2012

Mr. Samuel Unger, Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Dear Mr. Unger:

LOS ANGELES HARBOR BACTERIA TMDL – INNER CABRILLO BEACH COMPLIANCE STATION CB 01 –REQUEST FOR TIME SCHEDULE ORDER

The City of Los Angeles Bureau of Sanitation and Harbor Department would like to thank you for the opportunity to continue to work with you and your staff on the challenging issues associated with indicator bacteria exceedances at Inner Cabrillo Beach in Los Angeles Harbor. The bacteria TMDL became effective on March 10, 2005 with a five year compliance timeline. The deadline passed in March 2010, and, although the City has continued efforts to improve conditions in the Inner Cabrillo Beach area, bacteria indicator exceedances continue above those allowed in the TMDL. This letter is submitted as a request for a Time Schedule Order (TSO) so that the City can continue its diligent efforts to comply with the Bacteria TMDL for the Inner Cabrillo Beach boat launch ramp (Station CB01).

WATER QUALITY MONITORING DATA

Indicator bacteria are sampled five days per week at Station CB01 (Tuesday-Saturday). Results from the most recent six years are summarized in Table 1.

Table 1. Annual number of bacteria indicator exceedance days at CB01 (2007- 2012)*

Year	Single samples Summer dry weather		Single samples Winter dry weather		Geometric mean Year round	
	Actual	Allowed	Actual	Allowed	Actual	Allowed
2007	15	0	9	8	84	0
2008	17	0	12	8	63	0
2009	3	0	10	8	31	0
2010	10	0	17	8	63	0
2011	19	0	18	8	59	0
2012	23	0	11	8	53**	0

* Consistent wet weather sampling began in October, 2010; thus far no single sample exceedances have been recorded

** Data included until December 7, 2012

IMPLEMENTATION EFFORTS FOR TMDL COMPLIANCE

The City has installed numerous structural BMPs, completed exhaustive surveys and hydrodynamic studies, and made several housekeeping improvements in the Inner Cabrillo Beach area since year 2000. These measures have satisfied the Tier 1, Tier 2, and Tier 3 requirements set forth in the TMDL. Storm drain and sewer lines potentially influencing the area of the beach were extensively surveyed in 2002-2004, with attention placed on identifying abandoned or unmapped lines that could be cross connected, leaking, or improperly plugged. Any potential problem lines were repaired, diverted, plugged, or removed, including two leaking sanitary sewer lines from the bathhouse and lifeguard station. This process was ground-truthed in 2007, when the beach sand from the high tide line inland to the sidewalk area was excavated (described below). The main storm drain line affecting the beach area was diverted to the sanitary sewer (capacity to handle dry weather flow and first flush) in 2004.

The storm drain work described above diverted most of the flow coming into the Inner Cabrillo Beach area. Any remaining lines in proximity to CB01 will be inventoried as part of the plan for this TSO (see below). The boat launch area is separated from any drainage lines by a spit of riprap and it is currently unclear whether storm drain discharges are affecting bacteria levels at CB01.

Beach area housekeeping practices, including trash removal, restroom maintenance, beach sand grooming, and sidewalk and parking lot maintenance were examined and operating procedures improved in the 2004-2006 time frame. Public signage was also installed in the picnic areas.

The sand on the entire beach was replaced in two phases between 2007 and 2010. The new sand was selected from quarry material based on superior grain size and drainage characteristics. The beach was re-contoured to eliminate ponding that had occurred after high tides.

Several extensive hydrodynamic studies and modeling exercises have been conducted in concert with the U.S. Army Corps of Engineers. At the same time, microbiological surveys and ribotyping were conducted to determine the extent of the bacteria problem and quantify sources in the Inner Cabrillo Beach area. These efforts have continued with the investigation of eligibility for a Natural Source Exclusion.

These comprehensive measures, while focused primarily on the public swimming beach, were expected to improve conditions in the boat launch area as well. Despite these efforts, CB01 continues to have exceedances in indicator bacteria at a frequency above that allowed in the TMDL. We will continue to work closely with the Los Angeles Regional Water Quality Control Board staff to implement solutions for the beach bacteria issues and thus request additional time to bring CB01 into compliance as outlined below.

COMPLIANCE STRATEGIES

In order to address the administrative process specific to Inner Cabrillo Beach CB01 compliance, the City requests that a TSO be developed. We request that the TSO incorporate the following measures (deadlines are listed in parenthesis):

- Continue to monitor CB01 for indicator bacteria on a 5-day per week basis (ongoing)
- Inventory point source discharges in proximity to CB01 (September 2013)
- Conduct studies to determine extent of impact of identified point source discharges on CB01 (December 2013)
- Add CB01 to human marker studies underway for main beach face (ongoing)
- Conduct source identification/source tracking studies (December 2013)
- Investigate and institute additional non-structural BMPs (December 2013)
- Assess feasibility of diversion of identified storm drains impacting CB01 (December 2014)
- Construct feasible storm drain modifications (December 2016)
- Submit progress reports (annually, beginning December 2013)

We will monitor the effectiveness of the measures above, and, if necessary, institute additional site-specific bacteria control measures as technology becomes available.

In the interim, the City proposes that the Regional Board considers adoption of interim limits for CB01 as presented in Table 2. The Regional Board has relied upon Appendix E of USEPA's Technical Support Document (1994) in the past as the guidance for the statistical derivation of interim limits where the monthly average limitation has been set at the 95th percentile and the daily maximum set at the 99th percentile. Additionally, this approach has been used by the

Regional Board to establish interim limitations in instances where final WLAs in TMDLs are past due. Thus, as proposed, the interim limits are set equal to the 99th and 95th percentiles of the single sample maximum and geometric mean exceedances, respectively as observed over 2007-2012 using the data presented in Table 1. At this point, based on limited available data (see footnote to Table 1.), we have no basis on which to request an interim wet weather limit.

Table 2. Requested Interim Limitations for CB01

	Single samples Summer Dry Weather [1]	**Single samples Winter Dry Weather [2]**	**Geometric mean Year round [3]**
Interim Limitation	23	18	80

1 – Interim limit based on the 99th percentile of observed single sample maximum exceedance days during summer dry weather over 2007-2012.
2 – Interim limit based on the 99th percentile of observed single sample maximum exceedance days during winter dry weather over 2007-2012.
3 – Interim limit based on the 95th percentile of observed geometric mean exceedance days during dry weather over 2007-2012.

We will complete the program and anticipate that CB01 will come into compliance before December 2017. The City of Los Angeles is committed to resolving the Bacteria TMDL at Cabrillo Beach. We would like to continue interaction with your staff to insure the successful implementation of the aforementioned activities. We look forward to discussing the elements of the TSO with you at your convenience. If you have any questions, please contact us.

Sincerely,

SHAHRAM KHARAGHANI, Ph.D., P.E., BCEE
Program Manager
Bureau of Sanitation

CHRISTOPHER CANNON
Director, Environmental Management Division
Harbor Department

SK:CP:la
WPDCR9002

cc: Renee Purdy, California Regional Water Quality Control Board, Los Angeles Region
Ivar Ridgeway, California Regional Water Quality Control Board, Los Angeles Region
LB. Nye, California Regional Water Quality Control Board, Los Angeles Region
Traci Minamide, Chief Operating Officer, City of Los Angeles, Bureau of Sanitation
Adel Hagekhalil, Assistant Director, City of Los Angeles, Bureau of Sanitation
Robert Vega, Assistant Division Manager, City of Los Angeles, Bureau of Sanitation
Antonio V. Gioiello, Chief Harbor Engineer, Port of Los Angeles
Jon K. Mukri, General Manager, City of Los Angeles, Department of Recreation and Parks
Mike Christensen, Deputy Director of Development, Port of Los Angeles