Attachment 1

Proposed Basin Plan Amendments (strikeout/bold-underline version)

These amendments are proposed to be incorporated in the Basin Plan in Chapter 6 Total Maximum Daily Loads (TMDLs).

In the text and tables that follow, added language is underlined and bolded; deleted language is shown in strikeout type. Attachment 2 provides a clean version, showing how the amendments would appear in the Basin Plan.

Amend CHAPTER 6 TOTAL MAXIMUM DAILY LOADS (TMDL~~S~~s)

Newport Bay Watershed

3.a. Fecal Coliform TMDL~~S~~s

A prioritized, phased approach **is specified in these TMDLs** to ~~the control of~~ **address** pathogen indicator ~~bacterial quality~~ **bacteria in both Upper and Lower Newport Bay (Bay)**~~in the Bay is specified in this TMDL~~. This approach is appropriate, given the complexity of the problem, the paucity of relevant data on ~~bacterial~~ **bacteriological** sources and fate, the expected difficulties in identifying and implementing appropriate control measures, and uncertainty regarding the nature and attainability of the **shellfish (**SHEL**) beneficial** use in the Bay. The phased approach is intended to allow for additional monitoring and assessment to address areas of uncertainty and for future revision and refinement of the TMDL**s** ~~as warranted by these studies~~ **based on new data and information**.

Table 6-1f summarizes the TMDL**s**, **including** Waste Load Allocations (WLAs) for point sources of fecal coliform inputs and Load Allocations (LAs) for nonpoint source inputs. As shown, the TMDL**s**, WLAs**,** and LAs are established to assure compliance with water contact recreation **(REC-1)** standards no later than December 30, 2014, and with ~~shellfish~~ **SHEL** standards no later than ~~December 31, 2022~~**December 31, 2030**. WLAs are specified for vessel waste and urban runoff, including stormwater, the quality of which is regulated under a County-wide NPDES permit issued by the ~~Regional~~ **Santa Ana Water** Board. This runoff is**,** thus**,** regulated as a point source, even though it is diffuse in origin. LAs are specified for fecal coliform inputs from agricultural runoff, including stormwater, and natural sources. The TMDL**s** ~~is~~ **are** to be adjusted, as appropriate, based upon completion of the studies contained in Table 6-1g. Upon completion of these studies, an updated TMDL report will be prepared, summarizing the results of the studies and making recommendations regarding implementation of the TMDL**s**. The results of the studies may lead to recommendations for changes to the

TMDL**s** specified in Table 6-1f to assure compliance with existing Basin Plan standards (objectives and beneficial uses). The study results may also lead to recommendations for changes to the Basin Plan objectives and/or beneficial uses. If such standards changes are approved through the Basin Plan amendment process, then appropriate changes to the TMDL**s** would be required to assure attainment of the revised standards. Revision of the TMDL**s**, if appropriate, would also be considered through the Basin Plan amendment process.

Upon completion and consideration of the studies and any appropriate Basin Plan amendments, a plan for ~~compliance with~~ **attainment of** the TMDL**s** specified in Table 6-1f, or with ~~an~~ approved ~~amended~~ **revised** TMDL**s**, will be established. It is expected that this plan will specify a phased compliance approach, based on consideration of such factors as geographic location, the priority assigned by the ~~Regional~~ **Santa Ana Water** Board to specific locations for control actions (see Section 3.a.ii, "Beneficial Use Assessment"), season, etc. Interim WLAs, LAs**,** and compliance dates that lead to ultimate compliance with the TMDL**s** will be established.

The TMDL**s** and ~~its~~ allocations contain a significant margin of safety. The margin of safety can be either incorporated implicitly through analytical approaches and assumptions used to develop the TMDL**s** or added explicitly as a separate component of the TMDL**s**. A substantial margin of safety is implicitly incorporated in the TMDL**s** ~~in the fact that~~ **as** the TMDL**s** do~~es~~ not apply criteria for dilution, natural die-off, and tidal flushing. The TMDL**s**, WLAs, and LAs are established at concentrations equivalent to the water quality objectives.

(The following table was updated under Resolution Nos. R8-2017-0019 and R8-2022-0017)
Table 6-1f: Total Maximum Daily Loads, Waste Load Allocations, and Load Allocations for Fecal Coliform in Newport Bay

Total Maximum Daily Loads for Fecal Coliform in Newport Bay	Waste Load Allocations for Fecal Coliform in Urban Runoff, including ~~s~~ Stormwater, Discharges to Newport Bay	Load Allocations for Fecal Coliform in Agricultural Runoff, including ~~s~~ Stormwater, Discharges to Newport Bay	Load Allocations for Fecal Coliform from Natural Sources in ~~a~~ All Discharges to Newport Bay	Waste Load Allocations for Vessel Waste
REC-1 Standards: As soon as possible but no later than December 30, 201~~3~~			**In Effect**	**In Effect**
5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	5-Sample/30-days Geometric Mean less than 200 organisms/ 100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	0 MPN/100 mL No discharge.
SHEL Standards: As soon as possible but no later than ~~December 31, 2022~~December 31, 2030				**In Effect**
Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	0 MPN/100 mL No discharge.

Table 6-1g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As Soon As Possible but No Later Than
Task 1	Routine Monitoring Program (Section 3.a.ii.a) a) Submit Proposed Routine Monitoring Plan(s)[1] b) Implement Routine Monitoring Plan(s) c) Submit Monthly and Annual Reports (Reporting Period: April 1-March 31)	 a) (Within 30 days)[2] b) Upon Regional Board Approval of Plan(s) c) Monthly within 30 days, Annual Report by September 1
Task 2	Water Quality Model for Bacterial Indicators (Section 3.a.ii.b) a) Submit Proposed Model Development Plan b) Submit Calibrated Model and Model Documentation	 a) (Within 30 days) [2] b) 13 months after Regional Board approval of plan(s)
Task 3	Beneficial Use Assessment Plan (Section 3.a.ii.c) Submit Proposed Assessment Plan for: a) REC-1 b) SHEL	 a) (Within 30 days) [2] b) (Within 13 months) [2]
Task 4	Beneficial Use Assessment Report (3.a.ii.c) Submit Beneficial Use Assessment Report for: a) REC-1 b) SHEL	 a) 13 months after Regional Board approval of plan(s) b) 13 months after Regional Board approval of plan(s)
Task 5	Source Identification and Characterization Plan(s) (Section 3.a.ii.d) Submit Proposed Source Identification Plans for: a) The Dunes Resort b) Urban Runoff (including stormwater) c) Agriculture (including stormwater) d) Natural Sources	 a) (Within 60 days) [2] b) (Within 60 days) [2] c) (Within 3 months) [2] d) (Within 3 months) [2]

Table 6-1g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As Soon As Possible but No Later Than
Task 6	Source Identification and Characterization Reports (Section 3.a.ii.d) Submit Source Identification and Characterization Reports for: a) The Dunes Resort b) Urban Runoff (including stormwater) c) Agriculture (including stormwater) d) Natural Sources	 a) 7 months after Regional Board approval of plan(s) b) 13 months after Regional Board approval of plan(s) c) 16 months after Regional Board approval of plan(s) d) 16 months after Regional Board approval of plan(s)
Task 7	Evaluation of Vessel Waste Program (Section 3.a.ii.e) a) Submit Proposed Plan for Evaluating the Current Vessel Waste Program b) Submit Report on the Evaluation of the Vessel Waste Program	 a) (Within 3 months) [2] b) 12 months after Regional Board approval of plan
Task 8	TMDL, WLA, and LA Evaluation and Source Monitoring Program (Section 3.a.ii.f) a) Submit Proposed Evaluation and Source Monitoring Program Plan(s) b) Implement Evaluation and Source Monitoring Plan(s) c) Submit Monthly and Annual Reports (Reporting Period: April 1-March 31)	 a) 3 months after completion of Tasks 2, 4a, and 6 b) Upon Regional Board approval of plan(s) c) Monthly within 30 days, Annual Report by September 1
Task 9	Updated TMDL Report Submit updated TMDL report for: a) REC-1 b) SHEL	 a) 6 months after completion of Tasks 2, 4a, 6, and 7 b) 6 months after completion of Tasks 2, 4b, 6, and 7

Table 6-1g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As Soon As Possible but No Later Than
Task 10	Adjust TMDL, if necessary; adopt interim WLAs, LAs, and Compliance Dates (Section 3.a.ii.h) a) REC-1 b) SHEL[3]	 a) 12 months after completion of Updated TMDL Report for REC-1 (Task 9.a) b) 12 months after completion of Updated TMDL Report for SHEL (Task 9.b)
[1]Note: Provided that the monitoring program plan(s) fulfills the minimum requirements specified in this TMDL, approval of the TMDL shall constitute Regional Board approval of the monitoring program plan(s).		
[2]Note: Within specified time periods of State TMDL approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law). Upon State TMDL approval, this parenthetical "formula" will be replaced by the date certain, based upon the date of approval.		
[3]Note: The Santa Ana Water Board and the Orange County TMDL Funding Partners jointly funded both the first and second phases of a study to determine whether the fecal coliform water quality objectives (WQOs) currently established in the Basin Plan correlate with fecal indicator bacteria and pathogens in shellfish and are protective of the SHEL beneficial use. The first phase of the study, which began in 2018 and was conducted by the Southern California Coastal Water Research Project (Phase I SHEL Study, dry season conditions: Zimmer-Faust A.G., et al. 2022. Relationships between indicators and pathogens in shellfish and water in Newport Bay, CA. SCCWRP Technical Report No. 1193), found no correlation between the shellfish water column based WQOs and bacteriological and viral concentrations in shellfish tissue during dry weather conditions. Starting in Fall 2022, the second phase of the study will perform the same sampling and analysis as the first phase, except during wet weather conditions. The second phase of the study could take from two to potentially six years to complete, as the wet season study is highly dependent on having sufficient water column and shellfish tissue samples collected during precipitation events (which are highly unpredictable) to be scientifically verifiable. The results of these studies may indicate that the Santa Ana Water Board should consider revision of the fecal coliform WQOs for SHEL beneficial uses prior to the completion of Task 10b.		