

California Regional Water Quality Control Board
Santa Ana Region
Staff Report

June 14, 2019

ITEM: 9

SUBJECT: Issuance of Time Schedule Order No. R8-2019-0050 for the County of Orange, and the Cities of Tustin, Irvine, Laguna Hills, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach to comply with the Requirements Prescribed in Order No. R8-2009-0030 as amended by Order No. R8-2010-0062 (NPDES Permit No. CAS618030)

BACKGROUND:

On April 9, 1999, the Board adopted a total maximum daily load (TMDL) for fecal coliform in Newport Bay (Fecal Coliform TMDL) to address the impairments of the beneficial uses of water contact recreation (REC1) and shellfish harvesting (SHEL) due to elevated levels of fecal coliform in Upper and Lower Newport Bay (Resolution No. 99-10). The Fecal Coliform TMDL assigns waste load allocations (WLAs) for fecal coliform to the County of Orange and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach (collectively Permittees).

On May 22, 2009, the Regional Board adopted waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R8-2009-0030) for municipal separate storm sewer system (MS4) dischargers within the County of Orange and incorporated cities therein within the Santa Ana Region (Orange County MS4 Permit). This permit was administratively extended and continues in effect. Section XVIII.C.1 of the Orange County MS4 Permit includes effluent limitations to implement the WLAs for fecal coliform to protect REC1 and SHEL beneficial uses. The final compliance date in the Orange County MS4 Permit for the WLAs for REC1 and SHEL are December 30, 2014 and December 30, 2019, respectively. On June 16, 2017, the Regional Board adopted Resolution No. R8-2017-0019 which extended the final compliance date for the WLAs for SHEL from December 30, 2019 to December 31, 2022.

Monitoring data submitted by the County of Orange indicates that the Responsible Parties discharging to Newport Bay are not meeting the fecal coliform WLAs for the protection of REC1 and the final compliance date has passed. Accordingly, pursuant to California Water Code section 13300, a discharge of waste is taking place or threatens to take place that violates requirements prescribed by the Regional Board.

On April 26, 2016, Orange County Coastkeeper served the County of Orange and the Orange County Flood Control District with a Notice of Violation and Intent to File Suit alleging that the County of Orange had not reduced fecal coliform counts sufficiently to comply with the fecal coliform WLA included in the Orange County MS4 Permit. The parties signed a settlement agreement on October 20, 2016, which included a requirement to hold a series of facilitated public stakeholder meetings to address the issues raised in Orange County Coastkeeper's complaint. The stakeholder group that formed as a result of this settlement agreement included representatives from Orange County, cities within the

Newport Bay watershed, the Santa Ana Regional Water Quality Control Board, Orange County Coastkeeper, the business community of Orange County, the environmental community, the State Water Resources Control Board, the Southern California Coastal Water Research Project staff, and other agencies and members of the public (collectively, Newport Bay Fecal Coliform TMDL Stakeholder Group or Stakeholder Group).

The recommendations to the Regional Board by the Stakeholder Group was that the existing Fecal Coliform TMDL should be revised to incorporate the statewide REC1 enterococcus objectives set forth in the Inland Surface Waters Enclosed Bays and Estuaries Plan (ISWEBE Plan). The Stakeholder Group also recommended that a Time Schedule Order (TSO) for the Permittees was appropriate to provide the Permittees with additional time to comply with the fecal coliform WLAs for REC1 while the Fecal Coliform TMDL is revised.

A TSO is appropriate to allow the Permittees the necessary time to undertake actions either individually or collectively to reduce the amount of fecal coliform discharged from their respective MS4s to Newport Bay to meet REC1 WLAs. The TSO requires full compliance with the REC1 WLAs within 5 years from adoption and includes interim requirements and milestones. The requirements of the TSO are summarized below:

1. Interim effluent limitations must be met at compliance monitoring stations.
2. Construct Hoag Drain and Arches diversions
3. Install Newport Bay Bilge Pump Outs
4. Upgrade existing dry weather diversions at Newport Dunes
5. Conduct Source Investigation Study
6. The following plans and reports must be submitted:
 - a. Pollution Prevention Plan
 - b. Annual progress reports
 - c. Engineering Feasibility Analysis to identify additional BMP options at Costa Mesa Channel, Santa Isabel Channel, and Newport Dunes
 - d. Source Investigation work plan and technical memorandum
 - e. Source Management Plan with Human Source Reduction Strategy and Conceptual Design and Constraints Analyses for structural BMPs
7. Implement the Human Source Reduction Strategy

Regional Board staff distributed via email a draft TSO on March 20, 2019 to the participants in the Stakeholder Group. Comments were received by Regional Board staff during a Stakeholder Group meeting on March 28, 2019. Staff considered the comments and made changes to the draft TSO. Staff distributed a second draft TSO to the participants of the Stakeholder Group on April 29, 2019; stakeholders provided comments via email and during a Stakeholder Group meeting on May 1, 2019. Staff considered these additional comments and made changes to the second draft TSO. A final draft TSO was publicly noticed on May 14, 2019 for a 30-day comment period. The comment period closes on June 13, 2019.

RECOMMENDATION:

Staff recommends adoption of Order No. R8-2019-0050.

California Regional Water Quality Control Board

Santa Ana Region

Time Schedule Order No. R8-2019-0050

for

the County of Orange, and the Cities of Tustin, Irvine, Laguna Hills, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach

to comply with

the Requirements Prescribed in Order No. R8-2009-0030 as amended by Order No. R8-2010-0062 (NPDES Permit No. CAS618030)

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board) finds that:

1. On May 22, 2009, the Board adopted waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R8-2009-0030) for municipal separate storm sewer system (MS4) dischargers within the County of Orange and incorporated cities therein within the Santa Ana Region (Orange County MS4 Permit). This Order was later amended by Order No. R8-2010-0062 on October 29, 2010. The Orange County MS4 Permit was due to expire on May 22, 2014, but the permit was administratively extended and continues in effect until such time that a new permit is adopted by the Board.
2. The requirements of the Orange County MS4 Permit apply to the County of Orange, the Orange County Flood Control District, and the incorporated cities of Orange County within the Board's jurisdiction.
3. The Newport Bay watershed is located in central Orange County. The watershed encompasses 154 square miles and includes portions of the Cities of Newport Beach, Irvine, Laguna Hills, Lake Forest, Tustin, Orange, Santa Ana, and Costa Mesa. The watershed is encircled by mountains on three sides: the Santa Ana Mountains to the north, the Santiago Hills to the northeast, and the San Joaquin Hills to the south. The runoff from these mountains drains across the Tustin Plain and enters Newport Bay via Peters Canyon Wash and San Diego Creek.
4. The Water Quality Control Plan for the Santa Ana Basin (Basin Plan) identifies beneficial uses of Upper Newport Bay and Lower Newport Bay which are included in Table 1, below.

Table 1: Beneficial Uses in Upper and Lower Newport Bay

Beneficial Use	Lower Newport Bay	Upper Newport Bay
Navigation (NAV)	X	
Water Contact Recreation (REC1)	X	X
Secondary Contact Recreation (REC2)	X	X
Commercial and Sportfishing (COMM)	X	X
Preservation of Biological Habitats of Special Significance (BIOL)		X
Wildlife Habitat (WILD)	X	X
Rare, Threatened or Endangered Species (RARE)	X	X
Spawning, Reproduction and Development (SPWN)	X	X
Marine Habitat (MAR)	X	X
Shellfish Harvesting (SHEL)	X	X
Estuarine Habitat (EST)		X

5. In 1996, Upper and Lower Newport Bay were placed on California's Clean Water Act Section 303(d) List (303 (d) List) as impaired due to fecal coliform.
6. On April 9, 1999, the Board adopted a total maximum daily load (TMDL) for fecal coliform in Newport Bay (Fecal Coliform TMDL) to address impairments of the beneficial uses of water contact recreation (REC1) and shellfish harvesting (SHEL) due to elevated levels of fecal coliform in Upper and Lower Newport Bay (Resolution No. 99-10). The TMDL became effective on February 28, 2000.
7. The Fecal Coliform TMDL assigns waste load allocations (WLAs) for fecal coliform to the County of Orange and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach (collectively Permittees). The WLAs for REC1 were to be achieved as soon as possible, but no later than December 30, 2014. The WLAs for SHEL were to be achieved as soon as possible, but no later than December 30, 2019.
8. Section XVIII.C.1 of the Orange County MS4 Permit includes new effluent limitations to implement the WLAs for fecal coliform to protect REC1 and SHEL beneficial uses. These WLAs apply to discharges of urban runoff from MS4s owned or controlled by Permittees discharging into Newport Bay. Compliance with the WLAs specified in the Permit can be demonstrated by meeting the REC1 fecal coliform objectives at sampling locations within San Diego Creek and Newport Bay. The final compliance date in the Orange County MS4 Permit for the WLAs for REC1 is December 30, 2014¹ and the final compliance date for the WLAs for SHEL is December 30, 2019.

¹ Although the due date for compliance with REC1 fecal coliform WLAs is December 30, 2014, the due date for the

9. The Fecal Coliform TMDL specifies a prioritized phased approach to control bacterial indicators and includes several interim milestones to achieve the final WLAs. The Fecal Coliform TMDL also requires special investigations and monitoring to assess compliance with the WLAs, and to identify and characterize sources of fecal coliform so that appropriate control measures can be developed and implemented. The Fecal Coliform TMDL states that the results of the studies may indicate the need for revision of the TMDL.
10. On February 7, 2000, the Regional Board issued an order pursuant to California Water Code section 13267 that directed the Permittees to implement certain requirements including the following: 1) perform routine monitoring and submit annual reports; 2) develop a water quality model for bacterial indicators; 3) perform a beneficial-use assessment; 4) complete source identification and characterization; 5) evaluate the vessel waste program; 6) evaluate the TMDL, WLA and LA and source monitoring program; and 7) prepare and submit an updated TMDL report. The Permittees have submitted all required reports and plans to Board staff. A list of these documents is included as Attachment A.
11. On June 16, 2017, the Regional Board adopted Resolution No. R8-2017-0019 which extended the final compliance date for the WLAs for SHEL from December 30, 2019 to December 31, 2022. The Regional Board will include the revised final compliance date for SHEL in the new MS4 permit. If the new MS4 permit is not adopted before December 30, 2019, the Regional Board will not enforce the final compliance deadline as stated in the current Orange County MS4 Permit.
12. In 2015, the State Water Resources Control Board (State Water Board) began public scoping meetings for proposed amendments to the Water Quality Control Plans for Inland Surface Waters, Enclosed Bays and Estuaries (ISWEBE) and the Ocean Waters of California to establish statewide bacteria water quality objectives for REC1 beneficial use. The State Water Board adopted the statewide bacteria objectives for REC1 on August 7, 2018, and the United States Environmental Protection Agency approved the objectives on March 22, 2019. The statewide bacteria objective for ISWEBE uses enterococcus as the indicator for waters, like Newport Bay, where salinity is greater than 1 part per thousand more than 5 percent of the time.
13. On April 26, 2016, Orange County Coastkeeper served the County of Orange and the Orange County Flood Control District with a Notice of Violation and Intent to File Suit alleging that the County of Orange had not reduced fecal coliform counts sufficiently to comply with the fecal coliform WLA included in the Orange County MS4 Permit. On October 20, 2016, Orange County Coastkeeper, the County of Orange, and the Orange

WLAs listed in the Orange County MS4 Permit is December 30, 2013.

County Flood Control District signed a settlement agreement, which included a requirement to hold a series of facilitated public stakeholder meetings to address the issues raised in Orange County Coastkeeper's complaint. The stakeholder group that formed as a result of this settlement agreement included representatives from Orange County, cities within the Newport Bay watershed, the Santa Ana Regional Water Quality Control Board, Orange County Coastkeeper, the business community of Orange County, the environmental community, the State Water Resources Control Board, the Southern California Coastal Water Research Project staff, and other agencies and members of the public (collectively, Newport Bay Fecal Coliform TMDL Stakeholder Group or Stakeholder Group).

14. The Stakeholder Group meetings began on January 18, 2017, with the mission of addressing water quality issues associated with fecal coliform in Newport Bay with respect to the REC1 and SHEL beneficial uses. The Stakeholder Group's goal was to engage in focused dialogue amongst participants and to make recommendations to the Board. The Stakeholder Group met eleven times between January 18, 2017 to August 23, 2018.
15. The recommendations to the Regional Board by the Stakeholder Group, as recorded in the June 30, 2018 Memorandum developed by Larry Walker and Associates, was that the existing Fecal Coliform TMDL should be revised to incorporate the statewide REC1 enterococcus objectives set forth in the ISWEBE Plan. The Stakeholder Group also recommended that a TSO for the Permittees was appropriate to provide the Permittees with additional time to comply with the fecal coliform WLAs for REC1 while the Fecal Coliform TMDL is revised. The Permittees submitted a draft TSO for consideration by the Board to allow additional time to come into compliance with the REC1 WLAs under the Fecal Coliform TMDL during the August 23, 2018 Stakeholder Group Meeting.
16. California Water Code section 13300 or 13308 states "whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements."
17. Monitoring data submitted by the County of Orange indicates that the Permittees discharging to Newport Bay are not meeting the fecal coliform WLAs for the protection of REC1 and the final compliance date has passed.² Accordingly, pursuant to California

² The Permittees have stated that there is no evidence that discharge of waste is taking place, or has taken place or

Water Code section 13300, a discharge of waste is taking place or threatens to take place that violates requirements prescribed by the Board.

18. California Water Code section 13385, subdivisions (h) and (i), require the Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. Section 13385(j)(3) exempts violations of an effluent limitation from mandatory minimum penalties where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300 or 13308, if all of the specified requirements are met.
19. This TSO includes a schedule of compliance for Permittees to achieve compliance with the WLAs for fecal coliform in the Orange County MS4 Permit.
20. In accordance with California Water Code section 13385(j)(3)(B), the Board finds that the WLAs for fecal coliform for REC1 that are applicable to the Permittees' MS4 discharges are new effluent limitations in the Orange County MS4 Permit, the Permittees need to implement new or modified control measures in order to comply with the effluent limitations for the fecal coliform WLAs, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
21. Since the schedule for completion of the actions that will be necessary to bring the waste discharge into compliance exceeds one year from the effective date of this order, this TSO includes interim requirements and milestones in accordance with California Water Code section 13385(j)(3)(C)(iii). The interim requirements include interim water quality-based effluent limitations and corresponding interim receiving water limitations for fecal coliform and the actions and control measures that will lead to compliance with the final fecal coliform WLAs and the corresponding final receiving water limitations for this pollutant.
22. The interim water quality-based effluent limitations and corresponding interim receiving water limitations for fecal coliform are set to equal the TMDL geometric mean WLA for REC1, and the maximum exceedances of monthly single sample maximum WLAs calculated using annual monitoring data from January 1, 2015 through December 31, 2018. The interim limitations are listed in Table 2 of this TSO. Single Sample Maximum WLAs were not used for interim effluent limitations in this TSO. Geometric mean objectives are the more reliable measure of long-term water body conditions and are thus strongly preferred for use in water body assessment decisions.
23. The schedule included in this TSO is as short as possible, taking into account the

threatening to take place, that violates or will violate requirements proscribed by the Regional Board, including the pertinent limitations related to fecal coliform. The Permittees also maintain that monitoring data within the receiving water itself are not sufficient to demonstrate a violation of the Orange County MS4 Permit.

technological, operational, and economic factors that affect the design, development, and implementation of the control measures that will be necessary to comply with the WLAs for fecal coliform in the Orange County MS4 Permit and does not exceed five years in accordance with California Water Code section 13385(j)(3)(C)(i).

24. California Water Code section 13385(j)(3)(D) requires the County of Orange and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Laguna Hills, Lake Forest and Newport Beach to each prepare and implement a Pollution Prevention Plan (PPP), either individually or collaboratively, pursuant to California Water Code section 13263.3. Pursuant to California Water Code section 13263.3(d)(1)(D), the Board has determined that a PPP is necessary for this TSO.
25. A TSO is appropriate to allow the Permittees the necessary time to undertake actions either individually or collectively to reduce the amount of fecal coliform discharged from their respective MS4s to Newport Bay. The exceedances temporarily allowed by this TSO are in the public interest given the multiple environmental benefits associated with directing resources towards achieving compliance with the final fecal coliform WLAs in the Orange County MS4 Permit through the implementation of multi-benefit BMPs.
26. Pursuant to California Water Code section 13385(j)(3), full compliance by the Permittees with their respective applicable requirements in this TSO exempts the Permittees from mandatory minimum penalties only for violations of the final fecal coliform WLAs applicable to their MS4 discharges to Newport Bay.
27. If Permittees are in compliance with their respective applicable requirements in this TSO, it is not the Board's intention to take an enforcement action for violations of the fecal coliform WLAs applicable to Newport Bay as set forth in the Orange County MS4 Permit.
28. The Board will assess progress on the requirements of this TSO within a reasonable time-frame and, on the basis of this assessment of progress, determine whether modifications to the tasks and schedules are warranted at a public meeting.
29. This TSO is being issued for the protection of the environment and to enforce the Orange County MS4 Permit (a permit for existing MS4s). Therefore, issuance of this TSO is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21100 et seq.) in accordance with sections 15301 and 15321(a)(2) of Title 14 of the California Code of Regulations.
30. The Board has notified the Permittees and interested agencies and persons of its intent to issue this TSO concerning compliance with waste discharge requirements. The Board also provided the public with notice of its intent to adopt this TSO and allowed 30 days for public comment; the Board has considered the comments

received. The Board has considered all testimony pertinent to this matter in a public hearing.

31. Any person aggrieved by this action of the Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with California Water Code section 13320 and California Code of Regulations, Title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of the Board’s action, except if the thirtieth day following the date action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet: http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to California Water Code section 13300, the County of Orange, and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Laguna Hills, Orange, Lake Forest and Newport Beach shall comply with their respective applicable requirements listed below to ensure that their MS4 discharges to Newport Bay comply with the final fecal coliform Waste Load Allocations (WLAs) and do not cause or contribute to exceedances of corresponding receiving water limitations for fecal coliform in the Orange County MS4 Permit (Order No. R8-2009-0030):

1. The Permittees must achieve full compliance with the Orange County MS4 Permit fecal coliform WLAs and must not cause or contribute to exceedances of corresponding receiving water limitations for fecal coliform as soon as possible, but no later than 5 years from the adoption of this TSO. The compliance determination shall be based on monitoring conducted at the sites already monitored in compliance with the Orange County MS4 Permit water quality monitoring plan (the monitoring locations are listed in Attachment B).
2. The Permittees shall comply with the interim effluent limitations in Table 2 for fecal coliform WLAs. As long as the interim effluent limitations are met, this constitutes compliance with all WLAs during the period of this TSO. Compliance monitoring will be conducted at the monitoring locations listed in Attachment B.

Table 2: Interim effluent limitations for Geometric Mean WLAs

Fecal coliform Numeric targets	Current TMDL		TSO interim targets	
	UNB	LNB	UNB	LNB
Geometric mean (5 sample/ 30 days)	200 MPN/ 100 ml	200 MPN/ 100 ml	200 MPN/ 100 ml	200 MPN/ 100 ml

3. Revisions to the Orange County MS4 Permit water quality monitoring plan may be submitted during the TSO period. Any proposed new monitoring locations must be representative of the discharge of urban runoff into Newport Bay. The Permittees shall also submit a Quality Assurance Project Plan with the revised monitoring plan if revisions are submitted, as required in Section I.5 of the Monitoring and Reporting Program Order No. R8-2009-0030. Both the monitoring plan and Quality Assurance Project Plan will only be effective upon Executive Officer review and approval.
4. The Permittees shall install, implement, and maintain the Best Management Practices (BMPs) and control measures described in Attachment C of this Order.
5. The BMPs and control measures must be installed and/or completed as soon as possible, but no later than the deadlines included in the schedule in Attachment C.
6. The Permittees shall submit a Pollution Prevention Plan (PPP) to prevent fecal coliform discharges for review and approval by the Executive Officer by December 31, 2019. The PPP shall include a time schedule for implementation and the elements listed in California Water Code section 13263.3(d)(2).
7. Information from documents previously submitted, such as those submitted in compliance with the requirements of the section 13267 letter dated January 7, 2000, may be considered applicable to the PPP if approved by Regional Board staff. The Work Plan originally approved in Resolution No. 01-59 on June 1, 2003 will not be accepted in lieu of this required PPP.
8. The Permittees shall submit annual progress report(s) by September 1 of each year summarizing substantive efforts taken towards achieving compliance with the fecal coliform WLAs.
9. This annual report requirement will supersede Section B of the Monitoring and Reporting Program as approved in Resolution No. 00-101 on November 17, 2000. Orange County Health Care Agency's bacterial water quality monitoring data collected under the requirements of the California Health and Safety Code §115880 will no longer be accepted as a demonstration of MS4 permit compliance, unless the program conforms strictly with the objectives and requirements of the Newport Bay fecal coliform TMDL and the Orange County MS4 Permit.
10. The Permittees must complete an assessment of data relative to geometric mean and single sample maximum objectives as defined in the Basin Plan and the TMDL for individual sites and for pooled data within Upper Newport Bay and Lower Newport Bay, respectively. The raw data must be submitted into the California Environmental Data Exchange Network (CEDEN).

11. All technical and monitoring reports required under this TSO are required pursuant to California Water Code section 13383, 33 U.S.C. § 1318(a), and 40 C.F.R. § 122.41(h). The information requested will be used to determine compliance with this TSO and the Orange County MS4 Permit.
12. Any person signing a document submitted under this TSO shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
13. If any of the identified Permittees fail to comply with any provision applicable to that agency in this TSO, the Board may take any further action authorized by law against the agency that is out of compliance. The Executive Officer, or his/her designee, is authorized to take appropriate enforcement action pursuant, but not limited to, California Water Code sections 13350 and 13385. The Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.
14. All other provisions of the Orange County MS4 Permit (Order No. R8-2009-0030 and future revisions of the permit) not in conflict with this TSO are in full force and effect.
15. The Board may reopen this TSO at its discretion or at the request of any of the identified Permittees, if warranted. Lack of progress towards compliance with the applicable WLAs and receiving water limitations addressed by this TSO may be cause for the Board to modify the conditions of this TSO.
16. This TSO becomes effective immediately upon adoption by the Board.

I, Hope A. Smythe, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on June 14, 2019.

Hope A. Smythe
Executive Officer

ATTACHMENT A: Tasks and submissions addressing fecal coliform TMDL (Res. 99-10 table 5-9g)

Task	Description	Due dates	Document submitted*	Comments
1a	Routine Monitoring Program 1a) Submit Proposed Routine Monitoring Plan(s)	January 30, 2000		Approved (Res. No. 00-100)
1b 1c	Routine Monitoring Program 1b) Implement Routine Monitoring Plan(s) 1c) Submit Monthly and Annual Reports	b) Upon regional board approval of the plan (Res 00-100) c) Monthly within 30 days, Annual Report by September 1	Annual Reports 2001-2018	Implemented 2001
1b 1c	Routine Monitoring Program 1b) Implement Routine Monitoring Plan(s) 1c) Submit Monthly and Annual Reports	b) Upon regional board approval of the plan(s) (Res 00-100) c) Monthly within 30 days, Annual Report by September 1	Monthly reports	Orange County Health Care Agency beach monitoring accepted in-lieu of monthly reporting (Monitoring and Reporting Program No. 00-101)
2a 2b	Water Quality Model for Bacterial Indicators 2a) Submit Proposed Model Development Plan 2b) Submit Calibrated Model and Model Documentation	a) January 30, 2000 b) 13 months after Regional Board approval of plan(s)	Jan, Mar, April 2001 "Technical Reports"	
3a 4a	Beneficial Use Assessment Plan 3a) REC-1 Beneficial Use Assessment Report 4a) REC-1	3a) January 30, 2000 4a) 13 months after Regional Board approval of plan(s)	Public Health Risk Assessment for the Newport Bay Watershed:	

ATTACHMENT A: Tasks and submissions addressing fecal coliform TMDL (Res. 99-10 table 5-9g)

Task	Description	Due dates	Document submitted*	Comments
			Recreational Contact and Microbiological Risk (2001)	
3b	Beneficial Use Assessment Plan 3b) SHEL	March 1, 2001	Beneficial Use Assessment for Shellfish Harvesting in Newport Bay Work Plan (2001)	
4b	Beneficial Use Assessment Report 4b) SHEL	13 months after Regional Board approval of plan(s)	Newport Bay Shellfish Harvesting Assessment (2004)	
4b	Beneficial Use Assessment Report 4b) SHEL	13 months after Regional Board approval of plan(s)	Technical Memorandum Newport Bay Shellfish Beneficial Use Assessment Revalidation (2009)	
5a 6a	Source Identification Plans 5a) The Dunes Resort Source Identification and Characterization Report 6a) The Dunes Resort	5a) March 1, 2000 6a) 7 months after Regional Board approval of plan(s)	Swimmer Shedding Study in Newport Dunes, California (2005)	
5b 5d 6b 6d	Source Identification Plans 5b) Urban Runoff (including stormwater) 5d) Natural Sources Source Identification and Characterization Report 6d)	5b) March 1, 2000 5d) April 1, 2000 6b) 13 months after Regional Board approval of plan(s) 6d) 16 months after Regional Board approval of plan(s)	Newport Bay Fecal Indicator Bacteria Source Identification Project (2009)	

ATTACHMENT A: Tasks and submissions addressing fecal coliform TMDL (Res. 99-10 table 5-9g)

Task	Description	Due dates	Document submitted*	Comments
	6b) Urban Runoff (including stormwater) 6d) Natural Sources			
5c 6c	Proposed Source Identification Plans 5c) Agriculture (including stormwater) Source Identification and Characterization Reports 6c) Agriculture (including stormwater)	5c) April 1, 2000 6c) 16 months after Regional Board approval of plan(s)	Monitoring of Total and Fecal Coliform in Surface Runoff from Agricultural Operations in the Newport Bay/San Diego Creek Watershed (2003)	
6b	Source Identification and Characterization Reports b) Urban Runoff (including stormwater)	13 months after Regional Board approval of plan(s)	Assessing the Seasonal Impact of Storm Drains on Water Quality in Western Newport Bay, Southern California (2007)	
6b	Source Identification and Characterization Reports b) Urban Runoff (including stormwater)	13 months after Regional Board approval of plan(s)	Street Gutter Biofilms as a Source of Fecal Coliforms and Enterococcus in Urban Runoff - Abstract Q-1862 (2010)	Poster presentation only
6d	Source Identification and Characterization Reports d) Natural Sources	16 months after Regional Board approval of plan(s)	City of Newport Beach Arches Drain Microbial Source Tracking Studies 2013-2015 (2016)	
7a 7b	Evaluation of Vessel Waste Program	7a) April 1, 2000 7b) 12 months after Regional Board approval of plan	The Contribution of Marinas to Fecal Indicator Bacteria Impairment in Lower	

ATTACHMENT A: Tasks and submissions addressing fecal coliform TMDL (Res. 99-10 table 5-9g)

Task	Description	Due dates	Document submitted*	Comments
	a) Submit Proposed Plan for Evaluating the Current Vessel Waste Program b) Submit Report on the Evaluation of the Vessel Waste Program		Newport Bay, Southern California (2004)	
8	TMDL, WLA, and LA Evaluation and Source Monitoring Program 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)	8a) 3 months after completion of Tasks 2, 4a, and 6 8b) Upon Regional Board approval of plan(s) 8c) Monthly within 30 days, Annual Report by September 1	City of Newport BMP Report (2007)	
8	TMDL, WLA, and LA Evaluation and Source Monitoring Program 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)	8a) 3 months after completion of Tasks 2, 4a, and 6 8b) Upon Regional Board approval of plan(s) 8c) Monthly within 30 days, Annual Report by September 1	Newport Bay Fecal Coliform Source Management Plan (2009)	
9	Updated TMDL Report Submit updated TMDL report for: a) REC-1 b) SHEL	9a) 6 months after completion of Tasks 2, 4a, 6, and 7 9b) 6 months after completion of Tasks 2, 4b, 6, and 7	Recommended Revisions to the Newport Bay Fecal Coliform TMDL (2013)	

ATTACHMENT A: Tasks and submissions addressing fecal coliform TMDL (Res. 99-10 table 5-9g)

Task	Description	Due dates	Document submitted*	Comments
9	Updated TMDL Report Submit updated TMDL report for: a) REC-1 b) SHEL	9a) 6 months after completion of Tasks 2, 4a, 6, and 7 9b) 6 months after completion of Tasks 2, 4b, 6, and 7	Recommended Revisions to the Newport Bay Fecal Coliform TMDL (2015)	Revised draft of 2013 submission
9	Updated TMDL Report Submit updated TMDL report for: a) REC-1 b) SHEL	9a) 6 months after completion of Tasks 2, 4a, 6, and 7 9b) 6 months after completion of Tasks 2, 4b, 6, and 7	Newport Bay Fecal Coliform TMDL 2016 Summary of Management Activities (2016)	
10	Adjust TMDL, if necessary; adopt interim WLAs, LAs, and Compliance Dates a) REC-1 b) SHEL	10a) 12 months after completion of Updated TMDL Report for REC-1 (Task 9.a) 10b) 12 months after completion of Updated TMDL Report for SHEL (Task 9.b)	In preparation; under requirements of Time Schedule Orders 2019 (REC) and 2020 (SHEL)	This is the process that is occurring now

*https://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/FC_TMDL_Special_Studies.html
https://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/FC_TMDL_Annual_Reports.html

ATTACHMENT B: Monitoring stations in Upper and Lower Newport Bay

Lower Newport Bay Sampling Locations

STATION ID	LATITUDE ¹	LONGITUDE	NAME
BNB01	33.60578	-117.886	Park Avenue
BNB02	33.60871	-117.89053	Onyx Avenue
BNB03	33.60833	-117.89493	Ruby Avenue
BNB05	33.61259	-117.90758	Bayshore Beach
BNB07	33.61495	-117.91957	Via Genoa Beach
BNB09	33.62082	-117.93664	43rd Street Beach
BNB10	33.61834	-117.93426	38th Street Beach
BNB11	33.61614	-117.93092	33rd Street Channel
BNB12	33.6152	-117.92689	Rhine Channel
BNB14	33.60898	-117.92571	19th Street Beach
BNB15	33.60838	-117.92035	15th Street Beach
BNB17	33.60637	-117.91278	10th Street Beach
BNB18	33.60556	-117.9037	Alvarado/Bay Isle Beach
BNB20	33.60419	-117.89332	Sapphire Avenue Beach
BNB21	33.60415	-117.88799	Abalone Avenue Beach
BNB22	33.59875	-117.88257	N Street Beach
BNB23	33.59489	-117.87813	Rocky Point
BNB29	33.61327	-117.89902	Promontory Point Channel
BNB31	33.60639	-117.89939	Garnet Avenue Beach
BNB32	33.60976	-117.91425	Lido Yacht Club Beach
BNB33	33.60226	-117.8828	Bayside Drive Beach
BNB34	33.60576	-117.88877	Grand Canal
BNB35	33.6203	-117.92867	Newport Blvd. Bridge

Upper Newport Bay Sampling Locations

STATION ID	LATITUDE	LONGITUDE	NAME
BNB24E	33.61595	-117.89215	Newport Dunes East
BNB24M	33.61515	-117.89376	Newport Dunes Middle
BNB24N	33.61786	-117.89194	Newport Dunes North
BNB24W	33.6153	-117.89459	Newport Dunes West
BNB25 ²	33.63078	-117.88566	Vaughn's Launch
BNB26 ³	33.96982	-117.88685	Ski Zone
BNB28	33.62455	-117.8933	North Star Beach
BNB30	33.61711	-117.90402	De Anza Launch

¹ GPS coordinates were obtained from the OCHCA QAPP submitted to State Board for the AB411 beach monitoring program in 2018.

² Vaughn's Launch was not sampled at the required frequency (5 per 30-day period). Eighteen samples total were taken in 2015, sixteen in 2016, and nine in 2017.

³ Ski Zone was only sampled three times during 2015, ten times in 2016, once in 2017, and once during 2018.

ATTACHMENT C: BMPs and Control Measures

No.	Task	Completion Date
<i>Implement Priority BMPs</i>		
1	Construct Hoag Drain and Arches diversions (Fact Sheet #4)	<i>15 months after TSO effective date</i>
2	Install Newport Bay Bilge Pump Outs (Fact Sheet #9)	<i>18 months after TSO effective date</i>
3	Upgrade existing dry weather diversion at Newport Dunes, to allow operation during both dry and wet season, excluding storm periods (Fact Sheet #13)	<i>24 months after TSO effective date</i>
<i>Identify Additional BMPs for High Priority Areas</i>		
4	Complete Engineering Feasibility Analysis to identify additional BMP options for Costa Mesa Channel and Santa Isabel Channel (Fact Sheets #14, 15)	<i>6 months after TSO effective date</i>
5	Complete Engineering Feasibility Analysis to identify additional BMPs for the Newport Dunes (Fact Sheet #13)	<i>6 months after TSO effective date</i>
6	<p>Submit work plan(s) for source investigation studies intended to identify human waste sources in areas with possible Fecal Indicator Bacteria (FIB) exceedances. Source investigation studies will include at a minimum:</p> <ul style="list-style-type: none"> • Evaluation of blackwater sanitary sewer pump outs in Newport Bay • Human marker investigations in Costa Mesa Channel • Human marker testing in Santa Isabel Channel and Newport Dunes 	<i>4 months after TSO effective date</i>
7	Begin source investigation study in accordance with work plan under No. 6	<i>1 month after Regional Board staff approval of item No. 6 work plan</i>
8	Submit technical memorandum summarizing the results of the source investigation study from No. 6, and identifying any additional priority areas to evaluate for BMP implementation	<i>12 months after Regional Board staff approval of item No. 6. work plan</i>
9	Submit a Source Management Plan (SMP) focusing on priority areas, which shall include: (1) new strategies implemented since submission of the workplan required under TMDL Task 8, (2) identified sources of human waste; (3) for high-risk sources that fall within the jurisdiction of the Permittees, a list of feasible actions, with a schedule for completion for those identified actions; (4) for human waste sources outside of Permittee jurisdiction, recommend further	<i>18 months after Regional Board staff approval of item No. 6 work plan</i>

ATTACHMENT C: BMPs and Control Measures

No.	Task	Completion Date
	<p>actions to Regional Board staff. The updated SMP shall also include:</p> <ul style="list-style-type: none"> A. Human Source Reduction Strategy comprised of programmatic and source control activities to address identified sources, including coordination with agencies operating sanitary sewer systems to prioritize implementation of maintenance activities. B. Engineering Feasibility Analysis for structural BMPs for the priority areas identified in the source investigation study, that cannot be addressed by the human source reduction strategy, and that includes a defensible cost analysis; C. For the priority areas identified in the source investigation study that are not addressed by the human source reduction strategy, include a list of feasible structural BMPs identified from the Engineering Feasibility Analysis for which Conceptual Design and Constraints Analyses will be conducted. The Conceptual Design and Constraints Analysis will include a plan to identify and collaborate with potential project partners and to develop appropriate project performance metrics. The conceptual design and constraints analysis will also include estimates of the duration of construction activities beginning on the first day of soil disturbance and ending on the day of final stabilization for such projects as they are identified in the list. D. Provision demonstrating that if identified sources for a priority area can be addressed through the Human Source Reduction Strategy, the permittees may do so in lieu of implementing structural BMPs, and a Conceptual Design and Constraints Analysis would not be required for the priority area. This provision would only be applicable after approval by the Executive Officer. 	
<i>Implement Source Control BMPs and Develop Conceptual Designs for Structural BMPs</i>		
10	Begin implementation of Human Source Reduction Strategy	<i>1 month after Regional Board staff approval of item No. 9 source management plan</i>
11	Complete Conceptual Design and Constraints Analyses for structural BMPs identified in Source Management Plan	<i>18 months after Regional Board staff approval of Item No. 9 work plan</i>