

California Regional Water Quality Control Board  
Santa Ana Region

Time Schedule Order Number R8-2019-0050

for

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

to comply with

the Requirements Prescribed in Order Number R8-2009-0030 as amended by Order Number R8-2010-0062 (NPDES Permit Number CAS618030)

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

1. On May 22, 2009, the Santa Ana Water Board adopted waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) Permit (Order Number 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 Number 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 Santa Ana Water 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 Santa Ana Water 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, Laguna Woods, 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 River Basin (Basin Plan) identifies beneficial uses of Upper Newport Bay and Lower Newport Bay, which are included in Table 1.

Table 1: Beneficial Uses in Upper and Lower Newport Bay

<b>Beneficial Use</b>	<b>Lower Newport Bay</b>	<b>Upper Newport Bay</b>
Navigation (NAV)	Designated	Not Designated
Water Contact Recreation (REC1)	Designated	Designated
Non-contact Water Recreation (REC2)	Designated	Designated
Commercial and Sportfishing (COMM)	Designated	Designated
Preservation of Biological Habitats of Special Significance (BIOL)	Not Designated	Designated
Wildlife Habitat (WILD)	Designated	Designated
Rare, Threatened, or Endangered Species (RARE)	Designated	Designated
Spawning, Reproduction, and Development (SPWN)	Designated	Designated
Marine Habitat (MAR)	Designated	Designated
Shellfish Harvesting (SHEL)	Designated	Designated
Estuarine Habitat (EST)	Not Designated	Designated

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 Santa Ana Water 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 Number 99-10). The TMDL became effective on February 28, 2000.
7. The Fecal Coliform TMDL assigns waste load allocations (WLAs) for fecal coliform to urban runoff discharges to Newport Bay. The WLAs for urban runoff apply to stormwater discharges from the MS4s owned or controlled by the County of Orange, Orange County Flood Control District, and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, Laguna Hills, Laguna Woods, 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. 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, 2014, as reflected in the Basin Plan, and the final compliance date for the WLAs for SHEL is December 30, 2019.

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 Santa Ana Water 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, WLAs and load allocations, and source monitoring program; and 7) prepare and submit an updated TMDL report. The Permittees have submitted all required reports and plans to Santa Ana Water Board staff. A list of these documents is included as Attachment A.
11. On June 16, 2017, the Santa Ana Water Board adopted Resolution Number R8-2017-0019, which extended the final compliance date for the WLAs for SHEL from December 30, 2019 to December 31, 2022. The Santa Ana Water Board will include the revised final compliance date for SHEL in the new 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) of California, and for 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 for REC1 included in the Orange County MS4 Permit. On October 20, 2016, Orange County Coastkeeper, the County of Orange, and the Orange 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 Water Board, Orange County Coastkeeper, the business community of Orange County, the environmental community, the State Water 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 Santa Ana Water Board. The Stakeholder Group met eleven times between January 18, 2017 to August 23, 2018.
15. The Stakeholder Group's recommendations to the Santa Ana Water Board, as recorded in the August 28, 2018 memorandum prepared by Larry Walker and Associates, titled "Newport Bay Fecal Coliform Total Maximum Daily Load – Findings and Recommendations," are as follows: (1) revise the existing Fecal Coliform TMDL to incorporate the statewide REC1 enterococcus objectives set forth in the ISWEBE Plan, (2) develop a time schedule order (TSO) to provide the Permittees with additional time to comply with the fecal coliform WLAs for REC1 while the Fecal Coliform TMDL is revised, and (3) modify the new MS4 permit after the TMDL is revised to incorporate the TMDL revisions. The Permittees presented proposed language for a TSO during the August 23, 2018 Stakeholder Group meeting. The Santa Ana Water Board has considered these recommendations in its adoption of this TSO. Santa Ana Water Board staff will work to develop proposed revisions to the Fecal Coliform TMDL for the Santa Ana Water Board's consideration and will engage with stakeholders during the development of the TMDL. The Santa Ana Water Board will consider proposed amendments to the new MS4 permit to incorporate any approved TMDL revisions.
16. On October 28, 2019, the Permittees submitted a written request for a TSO to comply with the fecal coliform WLAs for Newport Bay. During the stakeholder process, the Permittees indicated that their preference was to amend the Orange County MS4 Permit. This was not a viable option, however, because an administratively continued permit may not be modified or revised. (Memorandum of Agreement between the U.S.

Environmental Protection Agency and the California State Water Resources Control Board (1989) p. 8). Furthermore, Santa Ana Water Board staff is focused on the renewal of the MS4 Permit and does not have the resources to also amend the Orange County MS4 Permit.

17. California Water Code section 13300 states “[w]henver 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.”
18. 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. 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 Santa Ana Water Board.
19. The Permittees submitted a proposed time schedule of specific actions that they will complete to comply with the Fecal Coliform TMDL WLAs. The Permittees’ proposed tasks and time schedule, with modifications deemed necessary by the Santa Ana Water Board, are set forth in Attachment C.

Under section XVIII.E.1 of the Orange County MS4 Permit, the Permittees must reevaluate their current control measures and propose and implement additional best management practices (BMPs) and/or control measures, if monitoring results indicate an exceedance of the WLAs for fecal coliform. The implementation of the tasks in this TSO is required under section XVIII.E.1 and is not a new requirement.

20. California Water Code section 13385, subdivisions (h) and (i), require the Santa Ana Water 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.
21. This TSO includes a schedule of compliance for Permittees to achieve compliance with the WLAs for fecal coliform in the Orange County MS4 Permit.

22. In accordance with California Water Code section 13385(j)(3)(B), the Santa Ana Water 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.
23. 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 for fecal coliform and the actions and control measures that will lead to compliance with the final fecal coliform WLAs.
24. The interim water quality-based effluent limitations for fecal coliform are set equal to the TMDL geometric mean WLA for REC1. The interim limitations based on the geometric mean are a reliable measure of long-term water body conditions and will be protective of water quality during the interim period of this TSO. The interim limitations are listed in Table 2 of this TSO. Interim effluent limitations based on a single sample maximum were not developed for this TSO.
25. The schedule included in this TSO is as short as possible, taking into account the 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).
26. California Water Code section 13385(j)(3)(D) requires the County of Orange, Orange County Flood Control District, and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Laguna Hills, Laguna Woods, 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 Santa Ana Water Board has determined that a PPP is necessary for this TSO.
27. 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.

28. Pursuant to California Water Code section 13385(j)(3), full compliance with the requirements in this TSO exempts the Permittees from mandatory minimum penalties for violations of the final fecal coliform WLAs for REC1 applicable to their MS4 discharges to Newport Bay. Full compliance with this TSO also exempts Permittees from mandatory minimum penalties for violations of the final fecal coliform WLAs for SHEL, until the new MS4 permit is adopted. When the new MS4 permit is adopted, this TSO will not have any effect on the Permittee's compliance with the fecal coliform WLAs for SHEL.
29. If Permittees are in compliance with the applicable requirements in this TSO, it is not the Santa Ana Water 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.
30. 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.) pursuant to sections 15301 and 15321(a)(2) of Title 14 of the California Code of Regulations.
31. The Santa Ana Water Board has notified the Permittees and interested agencies and persons of its intent to issue this TSO concerning compliance with waste discharge requirements. The Santa Ana Water Board also provided the public with notice of its intent to adopt this TSO and allowed 30 days for public comment; the Santa Ana Water Board has considered the written and oral comments received.
32. Any person aggrieved by this action of the Santa Ana Water Board may petition the 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 Santa Ana Water 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 [Water Quality Petitions page](#) or will be provided upon request.

**IT IS HEREBY ORDERED** that, pursuant to California Water Code section 13300, the County of Orange, the Orange County Flood Control District, and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Laguna Hills, Laguna Woods, 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 effluent limitations implementing

the fecal coliform WLAs for REC1 in the Orange County MS4 Permit (Order Number R8-2009-0030):

1. The Permittees must achieve full compliance with the Orange County MS4 Permit fecal coliform WLAs for REC1 as soon as possible but no later than four 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 for REC1. Compliance with the interim effluent and the other conditions of this TSO constitutes compliance with all fecal coliform WLAs for REC1 during the period of this TSO and compliance with the fecal coliform WLAs for SHEL until a new MS4 permit is adopted. The Permittees shall conduct compliance monitoring at the monitoring locations listed in Attachment B. Compliance with the interim limitations in Upper and Lower Newport Bay must be calculated separately using all locations sampled within each waterbody during that 30-day period.

Table 2: Interim Effluent Limitations for Fecal Coliform REC1 WLAs

<b>Upper Newport Bay</b>		
Fecal Coliform Effluent Limitations	Orange County MS4 Permit Limitations	TSO Interim Limitations
Geometric Mean (5 sample/ 30 days)	200 MPN/ 100 ml	200 MPN/ 100 ml
Single Sample Maximum	No more than 10 percent of samples >400 MPN/ 100 ml in any 30-day period	Single sample maximum will not be used as an interim limitation in this TSO

<b>Lower Newport Bay</b>		
Fecal Coliform Effluent Limitations	Orange County MS4 Permit Limitations	TSO Interim Limitations
Geometric Mean (5 sample/ 30 days)	200 MPN/ 100 ml	200 MPN/ 100 ml
Single Sample Maximum	No more than 10 percent of samples >400 MPN/ 100 ml in any 30-day period	Single sample maximum will not be used as an interim limitation in this TSO

3. The Permittees may submit proposed revisions to the Orange County MS4 Permit water quality monitoring plan to the Executive Officer for review and approval. Any proposed 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 for the Orange County MS4 Permit. Both the monitoring plan and Quality Assurance Project Plan will only be effective upon Executive Officer approval.
4. The Permittees shall install, implement, and maintain the BMPs and control measures described in Attachment C of this TSO.
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. Failure to meet these deadlines is a violation of this TSO.
6. The Permittees shall submit a PPP to prevent fecal coliform discharges for review and approval by the Executive Officer by the task completion date shown in Attachment C of this document (Task 4). The PPP shall include a time schedule for implementation and, at a minimum, shall contain all the elements listed in California Water Code section 13263.3(d)(2).
7. Information from documents previously submitted in compliance with the tasks required in the fecal coliform TMDL (Resolution Number 99-10) and those submitted in compliance with the requirements of the Water Code section 13267 letter dated January 7, 2000, may be considered applicable to the PPP, if approved by the Santa Ana Water Board Executive Officer. The Work Plan originally approved in Resolution Number 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 the results of data analysis, as well as all substantive efforts taken towards achieving compliance with the fecal coliform WLAs.
9. Any data submitted must conform with the objectives and requirements of the Newport Bay fecal coliform TMDL and the Orange County MS4 Permit.
10. In the annual reports, 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. The raw data must be submitted into a State Water Board approved

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database that will be used for developing lines of evidence in the integrated report water quality assessment and 303(d) listing decisions.

11. All technical and monitoring reports required under this TSO are required pursuant to California Water Code section 13383, 33 U.S.C. section 1318(a), and 40 C.F.R. section 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 Santa Ana Water 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 Santa Ana Water 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 Number R8-2009-0030 and future revisions of the Permit) not in conflict with this TSO are in full force and effect.
15. The Santa Ana Water 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 addressed by this TSO may be cause for the Santa Ana Water Board to modify the conditions of this TSO.
16. This TSO becomes effective immediately upon adoption by the Santa Ana Water Board.

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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 December 6, 2019.

Original Signed  
by  
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. Number 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 Number 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	3a) January 30, 2000	Public Health Risk Assessment	

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Task	Description	Due dates	Document submitted*	Comments
	Beneficial Use Assessment Report 4a) REC-1	4a) 13 months after Regional Board approval of plan(s)	for the Newport Bay Watershed: 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	Source Identification Plans	5b) March 1, 2000	Newport Bay Fecal Indicator Bacteria	

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Task	Description	Due dates	Document submitted*	Comments
5d 6b 6d	5b) Urban Runoff (including stormwater) 5d) Natural Sources Source Identification and Characterization Report 6b) Urban Runoff (including stormwater) 6d) Natural Sources	5d) April 1, 2000 6b) 13 months after Regional Board approval of plan(s) 6d) 16 months after Regional Board approval of plan(s)	Source Identification Project (2009)	
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

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

Task	Description	Due dates	Document submitted*	Comments
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 a) Submit Proposed Plan for Evaluating the Current Vessel Waste Program b) Submit Report on the Evaluation of the 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 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)	8a) 3 months after completion of Tasks 2, 4a, and 6 8b) Upon Regional Board approval of plan(s)	Newport Bay Fecal Coliform Source Management Plan (2009)	

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

Task	Description	Due dates	Document submitted*	Comments
	b) Implement Evaluation and Source Monitoring Plan(s) c) Submit Monthly and Annual Reports (Reporting Period: April 1-March 31)	8c) Monthly within 30 days, Annual Report by September 1		
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)	
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	10a) 12 months after completion of Updated TMDL Report for REC-1 (Task 9a)	In preparation; under requirements of Time Schedule Orders 2019 (REC) and 2020 (SHEL)	This is the process that is occurring now

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Task	Description	Due dates	Document submitted*	Comments
	b) SHEL	10b) 12 months after completion of Updated TMDL Report for SHEL (Task 9.b)		

\* [Fecal Coliform TMDL Special Studies](#)  
[Fecal Coliform TMDL Annual Reports](#)

ATTACHMENT B: Monitoring stations in Upper and Lower Newport Bay  
 (GPS coordinates were obtained from the OCHCA QAPP submitted to State  
 Water Board for the AB411 beach monitoring program in 2018.)

<b>Lower Newport Bay</b>			
<b>Station ID</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Name</b>
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

ATTACHMENT B: Monitoring stations in Upper and Lower Newport Bay  
 (GPS coordinates were obtained from the OCHCA QAPP submitted to State  
 Water Board for the AB411 beach monitoring program in 2018.)

<b>Lower Newport Bay</b>			
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

<b>Upper Newport Bay</b>			
<b>Station ID</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Name</b>
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

ATTACHMENT B: Monitoring stations in Upper and Lower Newport Bay  
(GPS coordinates were obtained from the OCHCA QAPP submitted to State  
Water Board for the AB411 beach monitoring program in 2018.)

<b>Upper Newport Bay</b>			
BNB25	33.63078	-117.88566	Vaughn's Launch
BNB26	33.96982	-117.88685	Ski Zone
BNB28	33.62455	-117.8933	North Star Beach
BNB30	33.61711	-117.90402	De Anza Launch

## ATTACHMENT C: Best Management Practices (BMPs) and Control Measures

Task	Description	Completion Date
1	Complete ongoing and approved structural BMP projects	
1a	Hoag Drain and Arches diversion	15 months after TSO effective date
1b	Newport Bay bilge pump installation	18 months after TSO effective date
1c	Newport Dunes diversion revision	24 months after TSO effective date
2	Develop new structural BMP projects	
2a	East Costa Mesa Channel diversion	6 months after TSO effective date
2b	Santa Isabel Channel diversion	6 months after TSO effective date
2c	Additional BMP projects for Newport Dunes	6 months after TSO effective date
3	Evaluate human sources of fecal contamination	
3a	Source investigation study design	4 months after TSO effective date
3b	Source investigation final report	12 months after Santa Ana Water Board approval of study design
4	Pollution Prevention Plan (PPP)	
	<p>A PPP that shall include, at a minimum, all of the following:</p> <ul style="list-style-type: none"> <li>a. An analysis of fecal coliform that the MS4 Permittees discharge into Upper and Lower Newport Bay, a description of the sources of fecal coliform, and a comprehensive review of the activities known to the discharger that result in the generation and discharge of fecal coliform.</li> <li>b. An analysis of the potential for pollution prevention to reduce the discharge of fecal coliform, including the application of innovative and alternative technologies and any adverse environmental impacts resulting from the use of those methods.</li> <li>c. A detailed description of the tasks and time schedules required to investigate</li> </ul>	18 months after Santa Ana Water Board approval of study design

## ATTACHMENT C: Best Management Practices (BMPs) and Control Measures

	<p>and implement various elements of pollution prevention techniques.</p> <ul style="list-style-type: none"><li>d. A statement of the discharger's pollution prevention goals and strategies, including priorities for short-term and long-term action.</li><li>e. A description of the discharger's existing pollution prevention methods.</li><li>f. An analysis, to the extent feasible, of the relative costs and benefits of the possible pollution prevention activities, including but not limited to Tasks 1 and 2 above. This includes estimates of numerical pollutant load reduction in receiving waters and defensible estimates of project costs.</li><li>g. A specification of, and rationale for, the technically feasible and economically practicable pollution prevention measures selected by the discharger for implementation, including but not limited to Tasks 1 and 2 above.</li></ul>	
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