

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD****SAN DIEGO REGION****TIME SCHEDULE ORDER NO. R9-2024-0010****AN ORDER REQUIRING DESIGNATED RESPONSIBLE PERMITTEES TO COMPLY WITH BACTERIA, PROJECT I-TWENTY BEACHES AND CREEKS TMDL REQUIREMENTS PRESCRIBED IN THE REGIONAL MUNICIPAL SEPARATE STORM SEWER SYSTEMS PERMIT FOR THE SAN DIEGO REGION**

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) finds:

**PART I. BACKGROUND****Part I, Section A. Regulatory Permits and TMDLs**

1. **Regional Municipal Separate Storm Sewer System (MS4) Permit.** Order No. R9-2013-0001, *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region* was adopted by the San Diego Water Board on May 8, 2013, and amended on February 11, 2015, and November 18, 2015. Order No. R9-2013-0001, as amended (Regional MS4 Permit) regulates discharges of stormwater and non-stormwater from MS4s operated by 39 governmental municipalities named in the Regional MS4 Permit (Copermittees) in a drainage area that encompasses multiple watersheds in portions of San Diego County, Orange County, and Riverside County. The Regional MS4 Permit includes, among other provisions, receiving water limitations requiring that MS4 discharges be controlled to not cause or contribute to exceedances of water quality standards in receiving waters, and other water quality-based requirements that require compliance with implementation provisions of approved total maximum daily loads (TMDLs). The Regional MS4 Permit requires the MS4 Copermittees to develop Water Quality Improvement Plans (WQIPs) that include water quality improvement numeric goals, schedules, and strategies to protect, preserve, enhance, and restore the water quality and designated beneficial uses of waters of the state. In particular, the Regional MS4 Permit requires the Copermittees to implement water quality improvement strategies and achieve water quality improvement goals in the Water Quality Improvement Plans.
2. **Bacteria TMDLs.** On February 10, 2010, the San Diego Water Board adopted Resolution No. R9-2010-0001, a *Resolution Amending the Water Quality Control Plan for the San Diego Basin to Incorporate Revised Total Maximum Daily Loads for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region (including Tecolote Creek)* (Bacteria TMDLs). This Resolution, amending the *Water Quality Control Plan for the San Diego Region* (Basin Plan)<sup>1</sup> to incorporate the Bacteria TMDLs, was subsequently

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<sup>1</sup> Basin Plan, Chapter 4, Page 4-112 available online at the San Diego Water Board website at [https://www.waterboards.ca.gov/sandiego/water\\_issues/programs/basin\\_plan/docs/R9\\_Basin\\_Plan.pdf](https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/R9_Basin_Plan.pdf)

approved by the State Water Resources Control Board (State Water Board) on December 14, 2010, the Office of Administrative Law on April 4, 2011, and the United States Environmental Protection Agency (USEPA) on June 22, 2011.

3. **Bacteria TMDL Waste Load Allocations.** The Waste Load Allocations (WLAs) for Fecal Indicator Bacteria (FIB) in the Bacteria TMDLs were developed using a reference system and antidegradation approach based on the bacteria water quality objectives for the water contact recreation (REC-1) beneficial use for ocean waters including beaches contained in the Water Quality Control Plan, Ocean Waters of California (2005 Ocean Plan), and in the Basin Plan for inland receiving waters. The natural source exclusion approach in current versions of the Basin Plan, the Ocean Plan and Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan) allows recalculation of bacteria TMDLs and/or adoption of site-specific objectives to include additional exceedance days after all anthropogenic sources of bacteria are identified, quantified, and controlled. TMDL recalculations and site-specific objectives to factor in the natural source exclusion approach must be adopted through a Basin Plan amendment prior to incorporation in the Regional MS4 Permit.
4. **Regional MS4 Permit Implementation Provisions for the Bacteria TMDLs.** Provision II.A.3 of the Regional MS4 Permit requires that each Copermittee comply with applicable WQBELs pursuant to the applicable compliance schedules. WQBELs include Final Receiving Water Limitations (Final RWLs) and Final Effluent Limitations which are consistent with the WLAs established in the Bacteria TMDLs. Specific Provision 6 in Attachment E of the Regional MS4 Permit (Specific Provision 6)<sup>2</sup> specifies the impaired waterbodies and segments thereof subject to Bacteria TMDL requirements (TMDL waterbodies) and the designated permittees responsible for implementing the TMDL requirements (TMDL Responsible Permittees), WQBELs to implement the TMDL WLAs, and a schedule of compliance. Specific Provision 6 requires the TMDL Responsible Permittees to reduce their waste loads of FIB to comply with final WQBELs for MS4 discharges into specified receiving waters no later than the final compliance dates of April 4, 2021, for dry weather and April 4, 2031, for wet weather.
5. **Prohibitions and Limitations Compliance Option in the Regional MS4 Permit.** Regional MS4 Permit, Provision II.B.3.c provides Copermittees with an option for implementing the WQIPs accepted by the San Diego Water Board to comply with the Prohibitions and Limitations specified in the Regional MS4 Permit, including applicable water quality based effluent limitations (WQBELs) established for TMDLs in Attachment E to the Regional MS4 Permit. This alternative compliance pathway requires an analysis that must demonstrate that implementation of the water quality improvement strategies in accordance with the schedules and milestones will achieve the final numeric goals by applicable compliance deadlines. The South Orange County Copermittees selected the receiving water alternative compliance pathway. The San Diego Water Board accepted the South Orange Copermittees' WQIP pursuant to Provision II.B.3.c on June 20, 2018. Because the compliance deadline had passed on December 30, 2022, the San Diego Water Board provided formal notification on January 11, 2023, that the WQIP was no longer adequate for deemed compliance with receiving water limitations for bacteria under Provision II.B.3.c. In addition, the San Diego Water Board also provided formal notification that the WQIP compliance pathway under Specific Provision 6.b.(3)(f) was no longer available

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<sup>2</sup> All subsequent references to "Specific Provision" are to the Regional MS4 Permit, Attachment E, unless indicated otherwise.

because the compliance deadline had passed. The San Diego Water Board also provided formal notification on January 11, 2023, that the Copermitees did not confirm either that WLAs were being attained or that an analysis had been submitted to the San Diego Water Board and accepted by the Executive Officer demonstrating that WLAs were being obtained by demonstrating that management practices had been implemented to attain the WLAs.

6. **Regional MS4 Permit Compliance Demonstration Provisions for the Bacteria TMDLs.** Specific Provision 6.b.(3) specifies six compliance pathways the TMDL Responsible Permittees may use to demonstrate compliance with the final WQBELs. The six compliance pathways are summarized in Table 1 below.

Table 1. Final Compliance Pathways Specified in Specific Provision 6.b.(3).

Specific Provision	Compliance Pathway Measure	Brief Summary of Compliance Pathway
6.b.(3)(a)	No discharge from MS4 outfalls	No discharge from MS4 outfalls to TMDL waterbodies
6.b.(3)(b)	Final Receiving Water Limitations (RWL) in Tables 6.2a and 6.2b	Water quality in TMDL waterbodies meet the Final RWLs
6.b.(3)(c)	Final Effluent Limits (ELs) in Table 6.2c	MS4 discharges to TMDL waterbodies meet the Final ELs
6.b.(3)(d)	Waste Load Reduction (WLR) requirements in Table 6.3	MS4 discharges to TMDL waterbodies meet WLR requirements
6.b.(3)(e) <sup>3</sup>	Extent and Magnitude of Natural Source Contributions	Demonstrate exceedances of Final RWLs in TMDL waterbodies are due to natural sources
6.b.(3)(f) <sup>4</sup>	Water Quality Improvement Plan (WQIP) Implementation Schedules and Milestones consistent with applicable compliance deadlines	Implementation of water quality improvement strategies and methods in accordance with the schedules and milestones in the WQIPs accepted by the San Diego Water Board

### Part I, Section B. Time Schedule Order Responsible Permittees

7. **Dry Weather Bacteria TMDLs Compliance Determinations.** Most TMDL Responsible Permittees elected to demonstrate compliance with the final WQBELs by meeting final dry

<sup>3</sup> The natural source compliance pathway (i.e., Specific Provision 6.b.(3)(e) is contingent upon a Basin Plan amendment that recalculates waste load allocations in accordance with the bacteria water quality objectives and implementation provisions in the California Ocean Plan and/or ISWEBE, as applicable, the TMDL implementation provisions in Chapter Four of the San Diego Water Board's Basin Plan and, if applicable, site-specific objectives in accordance with those requirements.

<sup>4</sup> The WQIP compliance pathway (i.e., Specific Provision 6.b.(3)(f) and the Prohibitions and Limitations Compliance Option discussed in Finding No. 6) must be based on a reasonable assurance demonstration acceptable to the San Diego Water Board where the schedules and milestones will attain the final WQBELs by the final TMDL compliance date, and these assumptions must be confirmed by water quality sampling.

weather RWLs (Specific Provision 6.b.(3)(b)). The San Diego Water Board reviewed dry weather receiving water data collected from October 1, 2020, through September 30, 2022, for all waterbodies.<sup>5</sup> The data was collected from the twenty beaches and creeks subject to the WQBELs in the Bacteria TMDL. The data reviewed included receiving water data collected by the TMDL Responsible Permittees and other relevant receiving water data.<sup>6</sup> These data were reviewed to determine whether FIB concentrations in the TMDL waterbodies met the Final RWLs for FIB, as specified in the Regional MS4 Permit, Attachment E, Tables 6.2a and 6.2b (i.e., the RWL compliance pathway), before and after the final dry weather compliance date of April 4, 2021. Using the assessment methodologies specified in Specific Provision 6.d, the San Diego Water Board identified the waterbody segments where the FIB levels do not meet the Final RWLs during dry weather. Tables 3.a through 3.c below identify the waterbody segments or areas that did not meet the Bacteria TMDL dry weather Final RWLs and that are covered by this TSO.

The Aliso Creek and San Juan Creek Responsible Permittees elected to comply with Specific Provision 6 through the pollutant load reduction pathway (Specific Provision 6.b.(3)(d)). Review of the supporting documentation submitted in the 2020-2021 South Orange County WQIP Annual Report showed that the bacteria load reductions were calculated based on receiving water monitoring data, without considering outfall monitoring data as required by Specific Provisions 6.b.(2)(b)(ii) and 6.b.(3)(d)). The Responsible Permittees for the Main Laguna Beach segment of the Pacific Ocean Shoreline in the South Orange County watershed elected to comply with Specific Provision 6 through the no discharge pathway (Specific Provision 6.b.(3)(a)) based on implementation of 42 existing low flow diversions within the South Orange County watershed. However, review of the data from this segment included evidence of dry weather discharges, so the Responsible Permittees discharging into the Main Laguna Beach segment of the Pacific Ocean Shoreline have not demonstrated compliance under Specific Provision 6.b.(3)(a). Therefore, the San Diego Water Board evaluated compliance with the receiving water pathway (Specific Provision 6.b.(3)(b)) since the Responsible Permittees for these waterbodies had identified the receiving water pathway as an alternative compliance pathway they were pursuing. The City of San Diego elected to comply with Specific Provision 6 through the no discharge pathway (Specific Provision 6.b.(3)(a)) based on implementation of low flow diversions at the Casa Beach (Children's Pool) and Windansea Beach (Palomar Avenue) segments of the Pacific Ocean Shoreline in the Mission Bay watershed. However, review of the data from these segments included evidence of dry weather discharges; therefore, the City of San Diego discharging into these segments did not demonstrate compliance under Specific Provision 6.b.(3)(a). The San Diego Water Board evaluated compliance for these segments with the receiving water pathway of Specific Provision 6.b.(3)(b).

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<sup>5</sup>The San Diego Water Board reviewed data from the 2019-2020 and 2020-2021 monitoring years for the Aliso Creek, Aliso Creek Mouth, San Juan Creek and San Juan Creek Mouth waterbody segments since the 2021-2022 data was not available during compliance determinations in December 2022.

<sup>6</sup> The other relevant receiving water data refer to the FIB data collected by the San Diego County Department of Environmental Health under the AB411 program for relevant beach segments in Table 6.0 of Attachment E, between October 1, 2020, through September 30, 2022. Data are available for download at the Beach Watch Program website hosted by the State Water Board at:

[https://www.waterboards.ca.gov/water\\_issues/programs/beaches/search\\_beach\\_mon.html](https://www.waterboards.ca.gov/water_issues/programs/beaches/search_beach_mon.html)

8. **Waterbody Segments or Areas and TMDL Responsible Permittees Not Meeting Bacteria TMDL Dry Weather Final WQBELs.** This TSO covers TMDL Responsible Permittees that are included in Attachment E, Table 6.0 of the Basin Plan and that have requested TSO coverage. Other TMDL Responsible Permittees may be discharging bacteria from their MS4s into the corresponding receiving waterbodies and segments in excess of the final dry weather bacteria WQBELs. Those with TSO coverage are referred to as TSO Responsible Permittees and are listed in Tables 3.a, 3.b and 3.c. TSO Responsible Permittees are causing or contributing to FIB exceedances of water quality objectives in those receiving waters and are violating or threatening to violate the final dry weather bacteria WQBELs in Specific Provision 6 and the receiving water limitation prohibition of Provision A.2.a with respect to bacteria water quality objectives.

### Part I, Section C.

#### United States Environmental Protection Agency (USEPA) Water Quality Criteria

9. **USEPA 2012 Recreational Water Quality Criteria.** In 2012, the USEPA released updated Recreational Water Quality Criteria<sup>7</sup> (USEPA 2012 Criteria) recommendations for protecting human health in all coastal and non-coastal waters designated for primary contact recreation use. The USEPA 2012 Criteria provides two sets of recommended criteria for *E. coli* in fresh water and enterococci in both marine and fresh water based on estimated human illness rates of 32 cases of illness per 1,000 people and 36 cases of illness per 1,000 people. The illness rate of 36 cases per 1,000 people corresponds to the *E. coli* and enterococci thresholds previously recommended by USEPA in 1986 for water contact recreation (REC-1) beneficial use.<sup>8</sup> The USEPA concluded in the USEPA 2012 Criteria that either 32 cases of illness per 1,000 people or 36 cases of illness per 1,000 people would protect the designated use of REC-1 activities. However, the USEPA 2012 Criteria states that the *E. coli* and enterococci thresholds corresponding to an illness rate of 32 cases of illness per 1,000 people would encourage an incremental improvement in water quality.
10. **Allowable Quantitative Microbial Risk Assessment Method to Develop Risk-based Thresholds for Alternative Indicators Other than FIB.** The USEPA 2012 Criteria and associated technical documents allow use of the Quantitative Microbial Risk Assessment (QMRA) method to develop risk-based thresholds for alternative indicators other than FIB for water bodies where the predominant sources of fecal contamination are non-human. The development of such thresholds for the alternative indicators must provide at least the same level of public health protection (while swimming) from associated gastrointestinal (GI) illness as the USEPA 2012 Criteria guidelines that recommend an allowable public health risk of no more than an average 32 to 36 cases of GI illness per 1,000 people.
11. **Statewide Bacteria Water Quality Objectives (WQOs).** In 2018, the State Water Board amended the FIB WQOs for water contact recreation beneficial use (REC-1) in the Ocean Plan and the ISWEBE Plan. The bacteria WQOs include Fecal Coliform and Enterococci as the indicator for pathogens in ocean and brackish water (where salinities are greater than 1 part per thousand), and *E. coli* for inland surface water with the levels of these bacteria indicators corresponding to a public health risk GI illness rate of 32 cases of illness per 1000 people. The statewide WQOs supersede the FIB WQOs in the Basin Plan. However,

<sup>7</sup> USEPA 2012 Recreational Water Quality Criteria Document. Docket Identification Number EPA-HQ-OW-2011-0466, available on the USEPA website at <https://www.epa.gov/wqc/2012-recreational-water-quality-criteria>

<sup>8</sup> The USEPA published *E. coli* and enterococci bacteriological criteria applicable to waters designated for contact recreation (REC-1) in the Federal Register, Vol. 51, No. 45, Friday, March 7, 1986, 8012-8016.

under the terms of the Ocean Plan and the ISWEBE Plan, TMDLs adopted prior to February 4, 2019, which implement numeric water quality objectives for bacteria to support REC-1 remain in effect. TMDLs adopted or recalculated after that date must implement the statewide WQOs.

12. ***E. coli* and Enterococci WQOs in the Basin Plan.** The 1994 Basin Plan (with amendments effective on or before September 1, 2021) includes *E. coli* and enterococci WQOs recommended by USEPA 1986 Criteria for designated REC-1 use.

#### **Part I, Section D. Human Associated Fecal Source Markers**

13. **Genetic Human Markers.** Recent research suggests that viral pathogens associated with human fecal material, such as norovirus and adenovirus, are the primary etiologic agents of swimming associated GI illness in the United States. In recent years, the use of “genetic human markers” has proven valuable in detecting human sources of fecal material in receiving waters. Genetic human markers include gene segments of the bacteria that are mostly associated with human feces, and not other non-human sources. In recent years, the detection of human associated fecal source markers, especially a state-of-the-art genetic marker HF183, has been increasingly used in microbial source tracking studies to identify fecal material of human origin. This TSO does not require the use of genetic human markers, but rather encourages the use of genetic human markers as a source tracking tool.

#### **Part I, Section E. Human Waste Sources and Associated Waste Loads Not Included in the Bacteria TMDL**

14. **Additional Human Waste Sources and their Associated Loads Not Considered during Bacteria TMDL Development.** Between 2014 and 2018, the San Diego Water Board conducted an internal review project to determine whether, and to what extent, data support amending the REC-1 WQOs, implementation provisions for applicable TMDLs, or the TMDLs themselves. In support of the review, the Copermitees conducted several investigations, including but not limited to the Surfer Health Study<sup>9</sup> and the Bacteria TMDL Cost Benefit Analysis.<sup>10</sup> Results of the internal review project indicated that other potential sources, such as homeless encampments, sewage collection system contributions, private lateral contributions, septic system contributions, and other illicit discharges, had not been included in the existing Bacteria TMDLs sources and waste load calculations. Based on the results of the internal review project, several short term and long-term regulatory program projects were recommended for implementation, including but not limited to the issuance of an investigative order for identifying human waste sources in the Lower San Diego River Watershed and revision of the Bacteria TMDLs.
15. **San Diego River Investigative Order.** On June 12, 2019, the San Diego Water Board issued Investigative Order No. R9-2019-0014 (San Diego River IO), to ten public agencies that own and/or operate sewer collection systems or storm drain systems, or both, in the lower San Diego River watershed. The San Diego River IO requires the named

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<sup>9</sup> Southern California Coastal Water Research Project (SCCWRP), SCCWRP Technical Report 943, The Surfer Health Study, A Three Year Study Examining Illness Rates Associated with Surfing During Wet Weather, September 2016, available at

[ftp://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/943\\_SurferHealthStudy.pdf](ftp://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/943_SurferHealthStudy.pdf).

<sup>10</sup> The report of Cost-Benefit Analysis San Diego Region Bacteria Total Maximum Daily Loads, October 2017, available at [https://www.waterboards.ca.gov/sandiego/water\\_issues/programs/basin\\_plan/docs/issue3/Final\\_CBA.pdf](https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/issue3/Final_CBA.pdf)

Responsible Parties to identify and quantify sources of human fecal waste to receiving waters in the lower San Diego River watershed. The receiving waters covered under the San Diego River IO include two freshwater Bacteria TMDL waterbodies - Forester Creek and the lower San Diego River. The San Diego River IO Responsible Parties have prepared and are in the process of implementing, a work plan to investigate the possible sources of human waste discharged into receiving waters in the lower San Diego River watershed, including sewage overflow and/or exfiltration from public sewer collection systems, spills and/or leakages from private laterals, deposits from homeless encampments, and onsite wastewater treatment systems. Results of these investigations are expected to further inform the San Diego River IO Responsible Parties as well as the San Diego Water Board about the existence and relative contribution of bacteria loads from sources of human wastes to receiving waters, helping to resolve the uncertainties about the “other bacteria sources” and their associated waste loads currently not included in the existing Bacteria TMDL. Results of the lower San Diego River investigation, including the relative contributions of waste loads from each potential source, will be summarized in a final report due to the San Diego Water Board on June 12, 2024.

**Part I, Section F. Control Measures Implemented by TMDL Responsible Permittees**

16. **Control Measures Implemented for Bacteria TMDLs.** Since the adoption of the Bacteria TMDLs in 2010, TMDL Responsible Permittees have developed and are implementing various strategies to control the discharge of bacteria from MS4s to comply with Specific Provision 6. These strategies involve the implementation of structural and non-structural Best Management Practices (BMPs) in corresponding TMDL watersheds under different stormwater management programs required by the Regional MS4 Permit.<sup>11</sup> Recently, multiple TMDL Responsible Permittees began to implement new strategies that target the control of bacteria and pathogen sources of human origin to comply with Specific Provision 6. Examples of structural and non-structural BMPs that have been implemented to date are provided in Table 2 below:

Table 2. Examples of Structural and Non-Structural BMPs

Structural BMPs	<ul style="list-style-type: none"> <li>• Installation, operation, and maintenance of dry weather flow diversion or UV treatment systems at creek mouths</li> <li>• Channel rehabilitation and wetland restoration projects</li> <li>• Low Impact Development (LID) and green streets</li> <li>• Biofiltering/bioretentation BMPs installation at new development and redevelopment projects</li> </ul>
Non-Structural BMPs	<ul style="list-style-type: none"> <li>• Closed-circuit television survey of sewer lines</li> <li>• Cleanup of homeless encampments</li> <li>• Establishment of Septic Pumping Rebate Program</li> <li>• Recreational vehicle illegal discharge surveillance</li> <li>• Water conservation campaign</li> <li>• Annual storm drain cleaning</li> <li>• Street sweeping and catch basin cleaning</li> </ul>

<sup>11</sup> Examples of stormwater management programs include, but are not limited to, the Illicit Discharge Detection and Elimination (IDDE) Program, the Development Planning Program, the Existing Development Management Program, and the Public Education and Participation Program.

## PART II.

### REGULATORY CONSIDERATIONS

17. **Authority to Issue Time Schedule Order (TSO).** California Water Code (Water Code) section 13300 authorizes the San Diego Water Board to issue TSO(s) to establish schedules to prevent or correct violations of waste discharge requirements.
18. **Requests for a TSO.** TMDL-based final compliance deadlines cannot be extended through schedules in a stormwater management program, such as a WQIP. (State Water Board Orders WQ 2015-0075 and WQ 2020-0038; Regional MS4 Permit, section II.B.3.a(1) fn. 7 and Fact Sheet, pp. F-46, F-139-140.) Rather, time schedule orders are an appropriate way to address non-compliance with final TMDL-based effluent limitations and receiving water limitations in the Regional MS4 Permit. Water Code section 13385, subdivision (j)(3) exempts violations of effluent limitations from mandatory minimum penalties that would otherwise apply under subdivisions (h) and (i) “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, if all of the [specified] requirements are met.” Between June 16, 2021, and August 13, 2021, certain Responsible Permittees<sup>12</sup> submitted requests to the San Diego Water Board for a TSO meeting the requirements of Water Code section 13385, subdivision (j)(3) to allow more time to comply with the Bacteria TMDL final dry weather WQBELs. The TSO was requested to provide time for implementing additional structural and non-structural BMPs, similar to the strategies listed in Table 2, to attain compliance with the final dry weather WQBELs.
19. **Findings Regarding Section 13385, subdivision (j)(3).** The San Diego Water Board finds that:
- the effluent limitations in Specific Provision 6.b.(2)(b) are a new, more stringent or modified regulatory requirement that became applicable to the MS4 waste discharges on April 4, 2021;
  - the Responsible Permittees need time to conduct additional investigations to identify and quantify additional sources, such as leaking sewers including private laterals, malfunctioning septic systems, and homeless encampments, and their associated loads of human fecal waste that were not considered in the Bacteria TMDLs, and then implement new or modified control measures to comply with these effluent limitations; and
  - the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
20. **Global Economic Considerations.** The COVID-19 pandemic has impacted the economy around the world and has led to reduced revenues for local governments. The Responsible Permittees raised concerns regarding the economic and practical impediments of COVID-19 on their ability to implement the Bacteria TMDL-based WQBELs. Stay-at-home orders and pandemic-related safety measures increased the time needed to complete some tasks.

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<sup>12</sup> The San Diego River Copermitees (City of San Diego, the County of San Diego, the City of Santee, the City of El Cajon, and the City of La Mesa) each submitted a letter requesting a TSO to implement final dry weather WQBELs for FIB. The City of San Diego requested a TSO for all TSO waterbodies for which the City of San Diego is named as a TSO Responsible Permittee in Tables 3.b and 3.c. The City of La Mesa also requested a TSO for Chollas Creek in the San Diego Bay WMA.



These impacts, which began in approximately March 2020, are recent compared to the now-expired ten-year implementation schedule for dry weather bacteria requirements, as well as U.S. EPA's longstanding illicit discharge detection and elimination (IDDE) requirements,<sup>13</sup> the receiving water limitations prohibition,<sup>14</sup> and the Clean Water Act's prohibition of non-stormwater discharges. However, the San Diego Water Board recognizes this unexpected development may have affected the timelines to attain compliance with dry weather bacteria requirements. The board has also considered the costs of this TSO to ameliorate those effects.

21. **Purpose of TSO.** The purpose of the TSO is to provide the TSO Responsible Permittees more time to attain compliance with the Bacteria TMDL-based MS4 permit requirements while making demonstrable progress toward identifying and abating sources of bacteria that may contribute to water quality impairments. A TSO is appropriate to allow the TSO Responsible Permittees the necessary time to resolve the uncertainties associated with the unaccounted human waste sources and pollutant loads<sup>15</sup> in the existing Bacteria TMDLs, and in turn, undertake actions either individually or collectively to reduce the quantity of bacteria discharged from their respective MS4s to the TSO waterbodies covered in the Bacteria TMDLs and Specific Provision 6. The TSO also aims to enhance public health protection associated with REC-1 activities by allowing the TSO Responsible Permittees to identify and prioritize reduction of human waste sources. TSO Responsible Permittees are encouraged to first direct resources toward the most significant sources of bacteria associated with the highest risk drivers - waste of human origin - to achieve effective protection of public health during water contact activities. As the high-risk waste sources and the dry weather discharge from dairy/intensive livestock facilities<sup>16</sup> are successfully controlled, the TSO Responsible Permittees must focus on controlling other diffuse anthropogenic FIB sources, such as trash and dog waste, to comply with the final dry weather WQBELs for the TSO waterbodies.

22. **TSO Requirements.** To avoid the assessment of mandatory minimum penalties, Water Code section 13385, subdivision (j)(3)(C)(iii) requires a TSO to specify interim requirements if the final date by which compliance is required to be achieved exceeds one year from the effective date of the TSO. Since the time schedule for completion of the actions necessary to bring the waste discharge into compliance exceeds one year from the effective date of the TSO, this TSO includes interim limits and dates for their achievement. The interim limits include 1) Interim Receiving Water Limitations for Beaches that require attainment of the FIB WQOs contained in the Ocean Plan, and allowable exceedance rates reasonably achievable in dry weather; and 2) Interim Effluent Limitations for Beaches and Creeks based on the FIB WQOs contained in the Ocean Plan and Basin Plan, and allowable exceedance rates reasonably achievable for MS4 discharges in dry weather.

In addition to the interim limits, this TSO requires the TSO Responsible Permittees to take specific actions strategically directed first toward control of high-risk waste sources and then

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<sup>13</sup> 55 Fed. Reg. 47990 (November 16, 1990)

<sup>14</sup> State Water Board Order WQ 99-05

<sup>15</sup> Leaking sewers including sewer mains and private laterals, malfunctioning septic systems, and homeless encampments are some examples.

<sup>16</sup> QMRA results indicate that among the farm animals tested, at given level of FIB in a waterbody, the GI illness risks associated with recreational exposure impacted by direct cattle contamination may not be substantially different from those impacted by human sources (Soller et al., 2010, available at <https://www.sciencedirect.com/science/article/abs/pii/S0043135410004367?via%3Dihub>).

followed by actions directed toward other diffuse anthropogenic sources to bring their MS4 discharges into compliance with the final WQBELs for FIB. This TSO allows for the proposal of additional monitoring station locations to support a more accurate MS4 discharge condition assessment that may be needed to determine compliance with Final FIB Dry Weather WQBELs.

23. **Duration of Time Schedule.** The established time schedule is as short as possible, considering the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the final dry weather WQBELs for FIB. Consistent with Water Code section 13385, subdivision (j)(3)(C), the schedule does not exceed five years from the effective date of this Order. The San Diego Water Board may, if appropriate, amend this TSO during a public hearing and provide up to five additional years for compliance with the Final Dry Weather WQBELs if the board finds the TSO Responsible Permittees are making diligent progress toward bringing the waste discharge into compliance and the TSO Responsible Permittees demonstrate that the additional time is necessary to comply.
24. **Early Termination/Rescission of TSO.** Should any TSO Responsible Permittee comply with a pathway in Regional MS4 Permit Attachment E Specific Provision 6.b.(3), during the term of the TSO, then the TSO Responsible Permittee may seek termination or rescission of the TSO for any applicable TSO Beach and/or TSO Creek segment. If a TSO Responsible Permittee that requests termination or rescission later finds that it cannot comply with the Final Dry Weather WQBELs, the San Diego Water Board will not reinstate coverage under this or any subsequent TSO for future violations of the Final Dry Weather WQBELs in the segment(s) in question.
25. **Pollution Prevention Plan (PPP).** Water Code section 13385, subdivision (j)(3) also requires a discharger to prepare and implement a PPP, either individually or collaboratively, pursuant to Water Code section 13263.3 in order to avoid mandatory minimum penalties. Pursuant to Water Code section 13263.3, subdivisions (d)(1)(D) and (d)(2) and section 13300, the San Diego Water Board has determined that a PPP is necessary and appropriate for FIB.
26. **Exemption from Mandatory Minimum Penalty.** Pursuant to Water Code section 13385, subdivision (j)(3), full compliance by the TSO Responsible Permittees with Directive 2 and other applicable requirements of this TSO exempts the TSO Responsible Permittees from any mandatory minimum penalties for violations of the final effluent limitations for Total Coliform, Fecal Coliform, and Enterococci applicable to the MS4 discharges during dry weather to the corresponding beaches and creeks listed in Tables 3.b and 3.c.
27. **Authority Under Water Code Section 13300.** A TSO that addresses violations of receiving water limitations or requirements to implement best management practices may include the requirements described in paragraphs 22, 23, and 25 but is not required to do so. All TSOs must “include a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of [permit] requirements.” A TSO that is consistent with section 13385, subdivision (j)(3) will also satisfy Water Code section 13300. The San Diego Water Board finds the requirements of this Order are necessary and appropriate to ensure compliance with all final WQBELs in Specific Provision 6.

- 28. Additional Enforcement Not Planned by the San Diego Water Board.** If the TSO Responsible Permittees are in compliance with their respective applicable requirements of this TSO, then San Diego Water Board staff will not recommend enforcement action for violations of the Final Dry Weather WQBELs applicable to the TSO waterbodies as set forth in Specific Provision 6 for violations that occur during the term of the TSO. The San Diego Water Board expects the TSO Responsible Permittees to continue to comply with all other provisions of the Regional MS4 Permit, including all monitoring requirements in Specific Provision 6.d.
- 29. Technical Reports.** All technical and monitoring reports required under this TSO are required pursuant to the Regional MS4 Permit and/or California Water Code section 13383. The San Diego Water Board needs the required information to determine compliance with the San Diego Regional MS4 Permit and this TSO. Section 13383 does not require an evaluation of the costs of monitoring and reporting.
- 30. Cost Considerations.** In Order WQ 2021-0005, the State Water Board encouraged, but did not require, the regional water boards to consider a reasonable range of estimated monitoring costs and whether any necessary monitoring and reporting may be accomplished with less expense. The San Diego Water Board has considered these factors. The need for monitoring is addressed above. Estimated costs are as follows:
- a. Directive 1 only applies to TSO Responsible Permittees discharging to TMDL Beach segments and requires TSO Responsible Permittees to conduct monitoring in the receiving water. As part of Specific Provision 6.d, Responsible Permittees are already implementing weekly sampling for Enterococci, Fecal Coliform, and Total Coliform (FIB) at each TMDL compliance station in dry weather-dry season conditions. South Orange County TSO Responsible Permittees have also been sampling beach stations for these FIB on a weekly basis in dry weather-wet season conditions. There are no additional costs anticipated to comply with Directive 1.
  - b. Directive 2 (Interim Bacteria Outfall Effluent Limitations) applies to TSO Responsible Permittees discharging to TSO Creeks. Those TSO Responsible Permittees discharging to a TSO Beach have the option to comply with Directive 1 or 2, but must comply with either Directive 1 or Directive 2. Directive 2 requires TSO Responsible Permittees to comply with and monitor for Directive 2.A or Directive 2.B.
    - i. If Directive 2.A is selected, each TSO Responsible Permittee would be required to sample a minimum of five outfalls per TSO segment weekly during the dry season. A TSO Responsible Permittee in one TSO segment would have to collect a minimum of 100 samples during the dry season and analyze the samples for either *E.coli* (Creek segments) or Enterococcus and Fecal Coliform (Beach segments). The current cost of analyzing a sample for *E.coli* ranges from \$50 - \$70 per sample. For TSO Responsible Permittees discharging to a TSO Creek segment, an estimated cost of \$5,000 - \$7,000 is anticipated for 100 samples. However, this estimate does not include administrative costs associated with sample collection and sample delivery to the laboratory for analysis. When administrative costs are included, the estimated cost of sampling for *E.coli* becomes \$300 per sample and the total estimated cost for 100 samples is \$30,000. In the past few years, some TMDL Responsible Permittees in South Orange County and San Diego County have already included *E.coli* analysis at select outfalls in creeks and streams. The current

cost of collectively analyzing Total Coliform, Fecal Coliform, and Enterococci ranges from \$150 - \$200 per sample. For TSO Responsible Permittees discharging to a TSO Beach segment, only Enterococcus and Fecal Coliform would have to be sampled and an estimated cost of \$15,000 - \$20,000 is anticipated for 100 samples. When administrative costs are included, the estimated cost of sampling becomes \$400 per sample and the total estimated cost for 100 samples is \$40,000.

- ii. If Directive 2.B is selected, each TSO Responsible Permittee would be required to conduct visual observations at a representative number of outfalls during the dry season within the TSO Responsible Permittees jurisdiction. Time and labor costs associated with conducting visual observations will vary depending on the location of the outfalls being observed. However, since no water quality sampling is required, the additional cost for conducting visual outfall observations is expected to be minimal. The use of continuous flow monitors or camera systems can further reduce costs.
- c. Directive 3 (TSO Monitoring Plan) requires TSO Responsible Permittees, electing to comply with Directive 2, to submit a monitoring plan for the number and location of outfalls where outfall effluent samples will be collected or where visual flow observations will be observed. Costs associated with developing a monitoring plan are expected to be minimal since TSO Responsible Permittees are already familiar with their outfall locations and outfall conditions as part of existing outfall inventory and field screening requirements in Provision D.2 of the Regional MS4 Permit.
- d. Directive 4 (Comply with Final Dry Weather WQBELs) and Directive 5 (Investigate and Abate Anthropogenic Sources) do not add to the requirements of the Regional MS4 Permit. Specific Provision 6.d of the Regional MS4 Permit required the TMDL Responsible Permittees to complete initial source identification and abatement no later than April 4, 2021, and on an ongoing basis thereafter. Investigative Order No. R9-2019-0014 already requires the Cities of El Cajon, La Mesa, Santee and San Diego, and the County of San Diego to conduct source identification and associated monitoring and reporting described in Directive 5.A.
- e. Directive 6 (Pollution Prevention Plan) largely duplicates the requirements of the Regional MS4 Permit. Separate reporting is necessary to track compliance with this TSO and progress toward attaining Final Dry Weather WQBELs. Any additional reporting costs are expected to be minimal.
- f. Directive 7 requires annual reporting by the dates listed in Table 6 (January 31 of each year following the effective date of the TSO). The TSO Responsible Permittees already submit WQIP annual reports each year by January 31 as part of the Regional MS4 Permit requirements in Provision F.3.b.(3). Depending on the complexity of the watershed, including but not be limited to, hydrology, geology, and different waste sources, the cost to include the specific information in Directive 7.A and Directive 7.B for each watershed may range from \$3,000 to \$5,000. This reporting is necessary for the San Diego Water Board staff to track and evaluate the effectiveness of TSO Responsible Permittees' source identification and abatement actions in controlling the anthropogenic sources of FIB in MS4 discharges and receiving waters, to effectively protect public health during REC-1 activities.

The burden, including costs, of the monitoring and reporting required by this Order bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

31. **CEQA Exemption.** This TSO is being issued to enforce an existing NPDES permit and is therefore exempt from the California Environmental Quality Act (Public Resources Code section 21100 et seq.) (CEQA) in accordance with Water Code section 13389 and sections 15301 and 15321(a)(2) of Title 14 of the California Code of Regulations. This TSO is being issued for the protection of the environment. Therefore, issuance of this TSO is exempt from the provisions of CEQA in accordance with section 15308 of Title 14 of the California Code of Regulations.
32. **Delegation of Authority to Executive Officer.** The San Diego Water Board, by prior resolution, has delegated all matters that may legally be delegated to its Executive Officer to act on its behalf pursuant to Water Code section 13223. Therefore, the Executive Officer is authorized to act on the San Diego Water Board's behalf on any matter related to this TSO, unless such delegation is unlawful under Water Code section 13223, or this Order explicitly states otherwise.
33. **Public Notice.** The San Diego Water Board notified the Responsible Permittees and interested agencies and other persons of its intent to issue this TSO concerning compliance with waste discharge requirements. The San Diego Water Board provided the public with notice of its intent to adopt this TSO and allowed more than 30 days for public comment. The public comment period began December 19, 2022, and closed February 17, 2023. A public workshop was held on February 8, 2023. A revised draft of the TSO was provided to parties and interested persons on February 8, 2024. A public hearing was held on March 13, 2024.
34. **Consideration of Public Comment.** The San Diego Water Board has considered the oral comments shared during the February 8, 2023, TSO Public Workshop and the March 13, 2024 public hearing, and the written comments received by February 17, 2023.

**PART III.****TIME SCHEDULE ORDER DIRECTIVES**

**THEREFORE, IT IS HEREBY ORDERED** that, pursuant to Water Code sections 13300, 13383, and 13385, in order to meet the requirements of the final dry weather WQBELs in Specific Provision 6 for FIB, the Responsible Permittees listed below must comply with the directives, reporting, and provisions of this TSO.

**TSO Responsible Permittees.** The TSO Responsible Permittees required to comply with this TSO are listed in Table 3.a. This list does not contain TMDL Responsible Permittees which demonstrated compliance with the final dry weather WQBELs by April 4, 2021, or TMDL Responsible Permittees who requested removal from TSO coverage.

**Table 3.a. List of TSO Responsible Permittees**

<b>San Diego County TSO Responsible Permittees</b>	<b>Orange County TSO Responsible Permittees</b>
City of Del Mar	City of Dana Point
City of El Cajon	City of Laguna Beach
City of Encinitas	City of Laguna Niguel
City of Escondido	City of Laguna Woods
City of La Mesa	City of San Clemente
City of Oceanside	County of Orange
City of Poway	Orange County Flood Control District
City of San Diego	
City of Santee	
City of Solana Beach	
City of Vista	
County of San Diego	

**Beaches and Creeks Covered by TSO.** Only a select number of TMDL Beach segments and TMDL Creek segments are covered under this TSO. A waterbody segment with TSO coverage is referred to as TSO Beach or TSO Creek. The TSO Responsible Permittees discharging to TSO Beach segments or areas are listed in Table 3.b and the TSO Responsible Permittees discharging to TSO Creeks<sup>17</sup> are listed in Table 3.c.

**TSO Directives for TSO Responsible Permittees Discharging to TSO Beaches.** TSO Responsible Permittees, listed in Table 3.b and discharging to a TSO Beach segment or area must comply with either Directive 1 or Directive 2, and Directive 3 (if applicable), Directive 4, Directive 5 (if applicable), Directive 6 (if applicable), Directive 7, and Directive 8 **annually and no later than September 30, 2028<sup>18</sup> or by the deadlines specified in each applicable directive.**

**TSO Directives for TSO Responsible Permittees Discharging to TSO Creeks.** TSO Responsible Permittees, listed in Table 3.c and discharging to a TSO Creek must comply with Directive 2, Directive 3, Directive 4, Directive 5, Directive 6, Directive 7, and Directive 8 **annually and no later than September 30, 2028<sup>19</sup> or by the deadlines specified in each applicable directive.**

<sup>17</sup> The Lower San Diego River is included and referred to as a TSO Creek

<sup>18</sup> This is the TSO deadline for the data collection period which ends on the last day of the 2028 dry season, September 30, 2028

<sup>19</sup> This is the TSO deadline for the data collection period which ends on the last day of the 2028 dry season, September 30, 2028.

**Table 3.b List of TSO Responsible Permittees Discharging to TSO Beach Segments or Areas**

<b>Watershed Management Area</b>	<b>Waterbody</b>	<b>Segment or Area</b>	<b>TSO Responsible Permittees</b>
South Orange County	Pacific Ocean Shoreline	- Cameo Cove at Irvine Cove Drive, Riviera Way - at Heisler Park, North	City of Laguna Beach
	Pacific Ocean Shoreline	- at Main Laguna Beach	City of Laguna Beach City of Laguna Woods
		- Laguna Beach at Ocean Avenue	City of Laguna Beach
		- Laguna Beach at Cleo Street	City of Laguna Beach
		- Arch Cove at Bluebird Canyon Road	City of Laguna Beach
		- Laguna Beach at Dumond Drive	City of Laguna Beach
	Pacific Ocean Shoreline	- Aliso Beach at West Street	City of Laguna Beach
		- Aliso Beach at Table Rock Drive	City of Laguna Beach
	Pacific Ocean Shoreline	- At Salt Creek (large outlet) at Monarch Beach	City of Dana Point City of Laguna Niguel
		- Poche Beach	City of San Clemente County of Orange Orange County Flood Control District
San Luis Rey River	Pacific Ocean Shoreline	At San Luis Rey River Mouth	City of Oceanside City of Vista County of San Diego
Carlsbad	Pacific Ocean Shoreline	At Moonlight State Beach	City of Encinitas
San Dieguito River	Pacific Ocean Shoreline	At San Dieguito Lagoon Mouth	City of Del Mar City of Escondido City of Poway City of San Diego City of Solana Beach County of San Diego
Los Peñasquitos	Pacific Ocean Shoreline	Torrey Pines State Beach at Del Mar (Anderson Canyon)	City of Del Mar City of Poway City of San Diego County of San Diego
San Diego River	Pacific Ocean Shoreline	At San Diego River mouth at Dog Beach	City of El Cajon City of La Mesa City of Santee City of San Diego County of San Diego
Mission Bay	Pacific Ocean Shoreline	-La Jolla Shores Beach at El Paseo Grande -La Jolla Shores Beach at Vallecitos -La Jolla Shores Beach at Avenida de la Playa -South Casa Beach at Coast Boulevard -Windansea Beach at Playa del Norte -Windansea Beach at Palomar Avenue -at Tourmaline Surf Park	City of San Diego

**Table 3.c List of TSO Responsible Permittees Discharging to TSO Creeks**

Watershed Management Area	Waterbody	Segment or Area	TSO Responsible Permittees
San Diego River	Forester Creek	Lower 1 mile	City of El Cajon City of Santee County of San Diego
	San Diego River	Lower 6 miles	City of El Cajon City of La Mesa City of Santee City of San Diego County of San Diego
Mission Bay	Tecolote Creek	Tecolote Creek Entire Reach and Associated Tributaries	City of San Diego
San Diego Bay	Chollas Creek	Chollas Creek Lower 1.2 miles	City of San Diego City of La Mesa

**Directive 1. Interim Bacteria Receiving Water Limitations for TSO Beaches.** TSO Responsible Permittees, listed in Table 3.b and discharging to a TSO Beach have the option to comply with Directive 1, but must comply with either Directive 1 or Directive 2. TSO Responsible Permittees, listed in Table 3.c and discharging to a TSO Creek do not have to comply with Directive 1. Discharges from MS4s owned or operated by a TSO Responsible Permittee that elects to comply with Directive 1 must not cause or contribute to exceedances of the Receiving Water Limitations for TSO Beaches at a frequency higher than the allowable frequency shown in Table 4 below. The TSO Responsible Permittees discharging to TSO Beaches must comply with the Interim Bacteria Receiving Water Limitations for TSO Beaches in Table 4 **annually and no later than September 30, 2028.**<sup>20</sup> The TSO Responsible Permittees must conduct weekly dry weather receiving water monitoring for FIB each dry season (May 1 to September 30)<sup>21</sup> and may continue to use existing TMDL receiving water monitoring programs to monitor TSO Beaches. Compliance with the Interim Receiving Water Limitations must be demonstrated while the TSO is in effect and reported through annual reports required in Directive 7.

<sup>20</sup> The data collection period ends on the last day of the 2028 dry season, September 30, 2028.

<sup>21</sup> For the first year of the TSO, Permittee’s would begin monitoring no later than June 1, 2024, and would conduct weekly receiving water monitoring from June 1, 2024, to September 30, 2024.



**Table 4. Interim Bacteria Receiving Water Limitations for TSO Beaches in Dry Weather**

Indicators	Receiving Water Limitations for TSO Beaches	
	Single Sample Maximum (SSM) <sup>[1]</sup>	Allowable Exceedance Frequency (%) <sup>[2]</sup>
Enterococci	110 cfu/100mL	10%
Fecal Coliform	400 cfu/100mL	10%

Notes for Table 4:

- [1] Enterococcus and Fecal Coliform values based on California Ocean Plan (with revisions effective February 4, 2019). For purposes of the TSO, the Enterococcus limitation is a single sample maximum, not the statistical threshold value (STV).
- [2] The Allowable Exceedance Frequencies are based on existing receiving water quality conditions in the TMDL waterbody segments to the Pacific Ocean Shoreline in the San Diego Water Board's regional boundary. The single sample maximum exceedance frequency must be calculated by dividing the number of dry weather samples that exceed the single sample maximum receiving water limitations in the Table by the total number of dry weather samples collected during the dry season (May 1 to September 30).

### **Directive 2. Interim Bacteria Outfall Effluent Limitations for TSO Creeks and TSO Beaches.**

TSO Responsible Permittees, listed in Table 3.b and discharging to a TSO Beach have the option to comply with Directive 2, but must comply with either Directive 1 or Directive 2. TSO Responsible Permittees, listed in Table 3.c and discharging to a TSO Creek must comply with Directive 2. Discharges in dry weather from a TSO Responsible Permittee's MS4 outfalls to each corresponding TSO waterbody segment,<sup>22</sup> must not exceed the Interim Outfall Effluent Limitations for each corresponding TSO waterbody type **annually and no later than the deadlines specified in Table 5.a, Table 5.b, or Table 5.c below**. TSO Responsible Permittees must demonstrate compliance with the Interim Outfall Effluent Limitations through the method described in Directive 2.A or Directive 2.B. Compliance with the Interim Outfall Effluent Limitations must be demonstrated while the TSO is in effect and reported through annual reports required in Directive 7.

#### **2.A. Comply with Table 5.a or Table 5.b Interim Outfall Bacteria Effluent Limitations.**

The TSO Responsible Permittees shall individually conduct weekly dry weather outfall discharge monitoring for FIB each dry season (May 1 to September 30)<sup>23</sup> from their MS4 outfalls discharging to each corresponding TSO waterbody segment (TSO Beach Outfalls or TSO Creek Outfalls). Each TSO Responsible Permittee must demonstrate that dry weather MS4 discharges from their TSO Beach Outfalls or TSO Creek Outfalls collectively do not exceed the applicable allowable exceedance frequencies in Table 5.a or Table 5.b for each TSO waterbody segment. A minimum of five outfalls per each corresponding TSO waterbody segment must be monitored and must be representative of the TSO Responsible Permittee's MS4 discharges to the applicable TSO waterbody segment(s). Where a TSO Responsible Permittee has less than 5 outfalls within a TSO waterbody segment, the TSO Responsible Permittee must monitor all of its outfalls within that TSO waterbody segment. TSO Beach Outfalls or TSO Creek Outfalls will be selected by each TSO Responsible Permittee and submitted for approval by the San Diego Water Board Executive Officer as part of the TSO Monitoring Plan, required in Directive 3 and due **by April 12, 2024**.

<sup>22</sup> See Table 3.b and Table 3.c of this TSO.

<sup>23</sup> For the first year of the TSO, TSO Responsible Permittee's would begin monitoring no later than June 1, 2024, and would conduct weekly outfall monitoring from June 1, 2024, to September 30, 2024.

**Table 5.a Interim Outfall Bacteria Effluent Limitations for MS4 Discharges to TSO Beaches in Dry Weather**

Indicators	MS4 Outfall Discharge to Beach		
	Single Sample Maximum (SSM) <sup>[1]</sup>	Allowable Exceedance Frequency (%) <sup>[2]</sup>	
		Compliance Required from TSO Effective Date through September 30, 2027	Compliance Required from May 1, 2028, through September 30, 2028
Enterococci	110 cfu/100mL	80%	50%
Fecal Coliform	400 cfu/100mL	30%	10%

Notes for Table 5.a:

- [1] SSM is a maximum value not to be exceeded in any single sample. Enterococcus and Fecal Coliform values based on California Ocean Plan (with revisions effective February 4, 2019). For purposes of the TSO, the Enterococcus limitation is a single sample maximum, not STV.
- [2] The Allowable Exceedance Frequencies are based on existing MS4 outfall discharge conditions to the Pacific Ocean Shoreline in the San Diego Water Board’s regional boundary. The single sample maximum exceedance frequency must be calculated by dividing the number of dry weather samples that exceed the single sample maximum effluent limitations in the Table by the total number of dry weather samples collected during the dry season (May 1 to September 30).

**Table 5.b Interim Outfall Bacteria Effluent Limitations for MS4 Discharges to TSO Creeks and Associated Tributaries in Dry Weather**

Indicators	MS4 Outfall Discharge to TSO Creeks and Associated Tributaries			
	Water Body	Single Sample Maximum (SSM) <sup>[1]</sup>	Allowable Exceedance Frequency (%) <sup>[2]</sup>	
			Compliance Required from TSO Effective Date through September 30, 2027	Compliance Required from May 1, 2028, through September 30, 2028
<i>E. coli</i>	Lower San Diego River (non-Forester Creek)	320 cfu/100mL	70%	50%
	Forester Creek		60%	50%
	Tecolote Creek		80%	50%
	Chollas Creek		90%	50%

Notes for Table 5.b:

- [1] SSM is a maximum value not to be exceeded in any single sample. *E. coli* SSM value obtained from San Diego Water Board Basin Plan (with amendments effective 2021).
- [2] The Allowable Exceedance Frequencies for creeks and streams, including tributaries thereto, are based on existing MS4 outfall discharge conditions in the respective tributaries to the corresponding waterbodies. The single sample maximum exceedance frequency must be calculated by dividing the number of dry weather samples that exceed the single sample maximum effluent limitations in the Table by the total number of dry weather samples collected during the dry season (May 1 to September 30).

**OR**

2.B. **Comply with Table 5.c Interim Outfall Effluent Flow Limitations.** The TSO Responsible Permittees shall individually conduct weekly dry weather outfall flow observations each dry season (May 1 to September 30)<sup>24</sup> from a proportion of all their MS4 outfalls with potential to discharge to each corresponding TSO waterbody segment (TSO Beach Outfalls or TSO Creek Outfalls). Where a TSO Responsible Permittee has less than ten outfalls within a TSO waterbody segment, the TSO Responsible Permittee must observe all of its outfalls within that TSO waterbody segment. Each TSO Responsible Permittee must demonstrate that their TSO Beach Outfalls and/or TSO Creek Outfalls collectively do not exceed the applicable allowable outfall flow discharge frequencies in Table 5.c below for each TSO waterbody segment. TSO Beach Outfalls and/or TSO Creek Outfalls must be selected based on the outfalls' potential to discharge to the applicable TSO waterbody segment(s). TSO Beach Outfalls and/or TSO Creek Outfalls will be selected by each TSO Responsible Permittee and submitted for approval by the San Diego Water Board Executive Officer as part of the TSO Monitoring Plan, required in Directive 3 and due **by April 12, 2024**. TSO Responsible Permittees may propose the use of continuous flow monitoring devices at selected TSO Beach Outfalls and/or TSO Creek Outfalls in lieu of or in addition to outfall observations in the TSO Monitoring Plan.

**Table 5.c Interim Outfall Effluent Flow Limitations for MS4 Discharges to TSO Beaches and TSO Creeks in Dry Weather**

Water Body	MS4 Outfall Flow Discharge Frequency to TSO Waterbodies		
	Segment	Allowable Flow Discharge Frequency (%) <sup>[1]</sup>	
		Compliance Required from TSO Effective Date through September 30, 2027	Compliance Required from May 1, 2028 through September 30, 2028
TSO Beach	All segments and areas	70%	50%
TSO Creek	Lower San Diego River (non-Forester Creek)	90%	50%
	Forester Creek	85%	50%
	Tecolote Creek	78%	50%
	Chollas Creek	75%	50%

Notes for Table 5.c:

[1] The Allowable Flow Discharge Frequencies are based on existing MS4 outfall discharge conditions for each TSO waterbody segment. The flow discharge frequency must be calculated based on the results of TSO Beach and/or TSO Creek Outfall observations during the dry season (May 1 to September 30). Flow discharge frequency is calculated as the number of routine outfall observation visits during which flow is observed divided by the number of routine outfall visits. The number of routine outfall visits is the number of outfalls visited multiplied by 21, which is the number of full weeks in the dry season. The first TSO outfall observation program visit to each outfall during each week of the dry season will be considered the routine monitoring visit. Additional visits during the same week may be made for source investigation or abatement purposes, but data from those visits will not be considered in calculating the flow discharge frequency. If flow observations are completed using continuous flow meters, camera systems, or other similar methods instead of using weekly site visits, the flow discharge frequency calculation approach for the specific equipment used and proposed installation location will be included in the TSO Monitoring Plan required by Directive 3.

<sup>24</sup> For the first year of the TSO, TSO Responsible Permittee's would begin outfall observations no later than June 1, 2024, and would conduct weekly outfall observations from June 1, 2024, to September 30, 2024.

**Directive 3. TSO Monitoring Plan.** The TSO Responsible Permittees discharging to TSO Creeks and the TSO Responsible Permittees discharging to TSO Beaches and electing to comply with Directive 2 must, individually or jointly, submit a TSO Monitoring Plan for their corresponding TSO Creeks and TSO Beaches to the San Diego Water Board Executive Officer for approval **by April 12, 2024**. The San Diego Water Board Executive Officer must approve TSO Monitoring Plans before outfall monitoring activities begin. Where the San Diego Water Board Executive Officer does not accept a TSO Monitoring Plan, the TSO Responsible Permittee shall monitor outfalls selected by the Executive Officer. Each TSO Responsible Permittee must ensure their TSO Monitoring Plans include the following:

- 3.A Identify whether outfall monitoring will be conducted to comply with Directive 2.A or Directive 2.B and include the sampling or observation methods to be used;
- 3.B Identify TSO Beach Outfalls and/or TSO Creek Outfalls, selected by each TSO Responsible Permittee, to be monitored (sampled or observed);
- 3.C Include a map of the location of all major MS4 outfalls owned or operated by the TSO Responsible Permittee and highlight the TSO Beach Outfalls and/or TSO Creek Outfalls discharging to or with potential to discharge to TSO Beaches and/or TSO Creeks. Where a Permittee has fewer than ten major MS4 outfalls, the TSO Responsible Permittee must identify the location of all minor MS4 outfalls owned or operated by the TSO Responsible Permittee and highlight the TSO Beach Outfalls and/or TSO Creek Outfalls directly or indirectly discharging to TSO Beaches and/or TSO Creeks;
- 3.D Classify flow status (e.g. persistent, transient, dry/no flow, ponded, tidal, undetermined) from the 2022-2023 monitoring period for all major MS4 outfalls in the map required in Directive 3.C;
- 3.E Include a tally of the number of persistent, transient, dry/no flow, ponded, tidal, and undetermined outfalls from the total number of all major MS4 outfalls owned or operated by the TSO Responsible Permittee;
- 3.F Identify MS4 outfalls with low flow diversions, continuous flow devices and/or cameras in the map required in Directive 3.C;
- 3.G Identify historical conditions for the past three years of TSO Beach Outfalls and/or TSO Creek Outfalls selected, such as, but not limited to including information whether selected outfalls are typically dry or persistently flowing and any information relating to the source of persistently flowing outfalls, for example if outfalls are suspected to be influenced by groundwater sources;
- 3.H Identify information for each TSO Beach Outfalls and/or TSO Creek Outfalls selected as to why each outfall was selected, drainage area covered, and how each outfall is representative of the TSO Responsible Permittee's MS4 discharges to the applicable TSO Beach and/or TSO Creek; and
- 3.I Identify alternative TSO Beach Outfalls and/or TSO Creek Outfalls to be monitored if, for any reason, outfall monitoring or observations are unable to be completed for the TSO Beach Outfalls and/or TSO Creek Outfalls selected under Directive 3.B and include information from Directives 3.G and 3.H for all alternative outfalls.

**Directive 4. Attain and Demonstrate Compliance with Final Dry Weather WQBELs. No later than September 30, 2028,** the TSO Responsible Permittees must attain and report compliance with the Final Dry Weather WQBELs for FIB in accordance with Specific Provision 6.b, including future amendments thereof.

**Directive 5. Required Watershed Control Measures.** The TSO Responsible Permittees discharging to TSO Creeks and associated tributaries and the TSO Responsible Permittees discharging to TSO Beaches and electing to comply with Directive 2 must implement and complete the following watershed control measures no later than the compliance dates specified in Directive 5.A and 5.B, in accordance with Regional MS4 Permit, Provision A (Prohibitions and Limitations), Provision E.2 (Illicit Discharge Detection and Elimination), and the waste load reduction requirements in Specific Provision 6.

**5.A. Conduct Anthropogenic Source Investigations.** The TSO Responsible Permittees discharging to TSO Creeks and associated tributaries and the TSO Responsible Permittees discharging to TSO Beaches and electing to comply with Directive 2 must, **no later than September 30, 2027**, conduct source tracking investigations, including necessary monitoring of outfall discharges, and receiving waters of the TSO Creeks and associated tributaries or TSO Beaches, to identify the sources of FIB exceedances in MS4 discharges and receiving waters.

**5.A.1 Microbial Source Identification Work Plan.** The TSO Responsible Permittees must, individually or jointly, submit a Microbial Source Identification Work Plan (MSIWP) for their corresponding TSO Creeks or TSO Beaches to the San Diego Water Board Executive Officer for approval **no later than July 12, 2024**. A MSIWP previously approved by the San Diego Water Board Executive Officer may comply with this Directive if San Diego Water Board staff determine the MSIWP meets the requirements in Directive 5.A.1. TSO Responsible Permittees relying on a previously approved MSIWP must notify the San Diego Water Board Executive Officer of its intentions **no later than July 12, 2024**. At a minimum, MSIWPs must include the following information:

- (i) Summaries of the hydrology and FIB pollution conditions in TSO Creeks and associated tributaries or TSO Beaches and storm drains discharging to TSO Creeks and associated tributaries or TSO Beaches;
- (ii) Map(s), including GIS files, showing the lateral extent(s), and associated flowing or non-flowing time periods of TSO Creeks and associated tributaries or TSO Beaches;
- (iii) Tabulated summaries, including Microsoft Excel (Excel) files, of the water quality conditions in TSO Creeks and associated tributaries or TSO Beaches with respect to FIB and human waste indicators, such as, but not limited to HF183, as available, over the past five years;
- (iv) Tabulated summaries, including Excel files, of the flow conditions (continuous, intermittent, or dry) and water quality conditions of MS4 outfalls that directly or indirectly discharge to the TSO Creeks and associated tributaries or TSO Beaches, over the past five years. Where available, water quality conditions at MS4 outfalls in terms of FIB levels and human waste indicator levels, such as, but not limited to HF183, must be summarized;
- (v) A summary list and map of the potential high risk FIB sources, including but not be limited to, locations and conditions of sewer mains and private laterals, septic systems,

transient populations, and as applicable, animal feeding operations in the TSO Creeks and associated tributaries or TSO Beaches;

- (vi) A summary list and map of the potential point discharges and diffuse sources of FIB, including and not limited to, horse ranches, outfalls or receiving water segments with high density of trash, and developed communities with high density of dog waste in the TSO Creeks and associated tributaries or TSO Beaches;
- (vii) An evaluation of whether dry weather discharges from outfalls presently monitored pursuant to Regional MS4 Permit, Provision D.2.b are representative of the FIB levels, from all outfalls owned or operated by the TSO Responsible Permittees in the corresponding TSO Creeks and associated tributaries or TSO Beaches. Further, to achieve the goal of accurately representing FIB waste discharges amongst all MS4 outfalls owned or operated by the TSO Responsible Permittees, the evaluation must include an assessment of whether additional outfalls should be added to the outfalls presently monitored pursuant to Regional MS4 Permit, Provision D.2.b and/or if the monitoring frequency at the presently monitored outfalls should be increased. These evaluations must consider dry weather outfall monitoring results collected during monitoring fiscal years 2017-2018, 2018-2019, 2019-2020, 2020-2021, 2021-2022, and 2022-2023. This evaluation must be summarized in the MSIWP;
- (viii) An analysis of how TSO Responsible Permittees will use the dry weather outfall monitoring results from data collected pursuant to Regional MS4 Permit, Provision D.2.b to assist the source investigation activities required under Directive 5.B.1.(x) below;
- (ix) A map of the TSO Creek Outfalls or TSO Beach Outfalls to be monitored and list of their GPS coordinates. Along with the map, TSO Responsible Permittees must describe the rationale and justification that discharges from these TSO Creek Outfalls or TSO Beach Outfalls are representative of the TSO Responsible Permittee's MS4 discharges. The rationale and justification must include consideration of the levels of FIB in the dry weather discharge from all outfalls owned or operated by the TSO Responsible Permittees; and
- (x) A summary of the source identification strategies, actions taken within each strategy, and their associated schedules and milestones throughout the source investigation. Schedules must include but not be limited to, dates for any desktop analysis or estimation of potential source contributions, prioritization criteria for investigative activities, field surveys, outfall and receiving water sampling, and data analysis.

**5.B Abate Anthropogenic Sources.** The TSO Responsible Permittees discharging to TSO Creeks and associated tributaries and the TSO Responsible Permittees discharging to TSO Beaches and electing to comply with Directive 2 must, no later than **September 30, 2028**, abate anthropogenic sources of FIB identified in Directive 5.A above, including but not limited to, human and livestock waste sources, in accordance with Regional MS4 Permit, Provision A (Prohibitions and Limitations), Provision E.2 (Illicit Discharge Detection and Elimination), and the waste load reduction requirements Specific Provision 6. Work to abate anthropogenic sources of FIB must begin as soon as possible following the adoption of this TSO.

**5.B.1 Microbial Source Abatement Work Plan.** The TSO Responsible Permittees must, individually or jointly, submit a Microbial Source Abatement Work Plan (MSAWP) for their corresponding TSO Creeks or TSO Beaches to the San Diego Water Board Executive Officer for approval with the Pollution Prevention Plan (PPP) required in Directive 6 below.

**Directive 6. Pollution Prevention Plan.** Pursuant to California Water Code section 13385, subdivision (j)(3)(D) and section 13263.3, subdivisions (d)(1)(D) and (d)(2), the TSO Responsible Permittees discharging to TSO Creeks and associated tributaries and the TSO Responsible Permittees discharging to TSO Beaches and electing to comply with Directive 2 must, individually or jointly, submit a PPP for bacteria to the San Diego Water Board Executive Officer for approval **no later than January 31, 2026**. The PPPs must be submitted with the Water Quality Improvement Plan (WQIP) Annual Reports **due by January 31, 2026**. Pursuant to California Water Code section 13263.3, subdivision (d)(2), the PPP must include, without limitation, all information listed below:

- 6.A A description of the human and non-human anthropogenic sources as well as natural sources of bacteria discharged from the TSO Responsible Permittees' MS4s into the TSO Creeks and associated tributaries or TSO Beaches, and a comprehensive review of the processes and/or activities that result in the generation and discharge of these bacteria;
- 6.B An analysis of the TSO Responsible Permittees' existing pollution prevention methods to reduce the level of FIB and human waste indicators in each of their MS4 discharges to the TSO Creeks and associated tributaries or TSO Beaches. Human waste indicators may include, but are not limited to, HF 183. The analysis must include a statement that existing pollution prevention strategies do not constitute cross media pollution transfers unless clear environmental benefits of such an approach are provided to the San Diego Water Board;
- 6.C A summary of existing and additional bacteria pollution prevention measures, including expected outcomes of each measure and priorities for short-term and long-term actions, to ensure effective control of human and non-human anthropogenic sources. The additional measures shall include, but not be limited to, control measures identified based on the results of watershed hydrology surveys, sanitary surveys, and/or other microbial source tracing studies. The summary of additional measures shall include a statement that planned pollution prevention strategies do not constitute cross media pollution transfers unless clear environmental benefits of such an approach are provided to the San Diego Water Board;
- 6.D A detailed description of the tasks and the time schedules required to investigate and implement various elements of bacteria pollution prevention measures;
- 6.E An analysis, to the extent feasible, of the relative costs and benefits of the existing and additional bacteria pollution prevention activities. A specification of, and rationale for, the technically feasible and economically practicable bacteria pollution prevention measures selected for implementation by the TSO Responsible Permittee;
- 6.F The PPP must also identify operation practices and maintenance frequencies for existing structural BMPs, including low flow diversions, bio-retention filters, and trash excluders (including trash screens installed in catch basins) implemented to achieve the Final Dry Weather WQBELs. The PPP must also include planned operation practices and maintenance frequencies for future structural BMPs to be developed and implemented to achieve the Final Dry Weather WQBELs;
- 6.G The PPP must include the MSAWP required in Directive 5.B.1 and must summarize results of the source investigation activities conducted and the FIB sources (both anthropogenic and natural) identified under Directive 5.A. A MSAWP previously approved by the San Diego Water Board Executive Officer may comply with this Directive if San Diego Water Board staff determine the MSAWP meets the requirements in Directive 6.G. TSO Responsible Permittees relying on a previously approved MSAWP must notify the San Diego Water Board Executive Officer of its intentions **no later than January 31, 2026**, with submittal of the PPP. The

MSAWP must propose corrective actions, strategies, activities, associated schedules and milestones for each high-risk anthropogenic FIB source discharging into TSO Responsible Permittees’ MS4s identified in Directive 5.A.1.(v) to achieve the following:

- (i) Abate the human waste sources of bacteria entering the TSO Responsible Permittee’s MS4s;
- (ii) Abate the non-human anthropogenic sources of bacteria to ensure that, at a minimum, unpermitted dry weather flow is not discharged from any livestock or animal feeding operations into MS4 systems or receiving waters;
- (iii) Comply with the Interim Bacteria Outfall Effluent Limitations in Directive 2; and
- (iv) Comply with the Final Dry Weather WQBELs in Directive 4 by September 30, 2028.

**Directive 7. TSO Compliance Reports and Submittal Schedule.** The TSO Responsible Permittees must prepare and submit, either individually or jointly, written annual TSO Compliance Reports. TSO Compliance Reports must be submitted with WQIP Annual Reports **each year by January 31**. All TSO Compliance Reports must be submitted following the effective date of this TSO. Submission of these compliance reports must continue until the Final TSO Compliance Report is submitted on January 31, 2029. Table 6 below provides a schedule with the due dates for TSO Compliance Reports and other TSO submittals. TSO Compliance Reports must provide the information listed in Directive 7.A for those TSO Responsible Permittees discharging to TSO Beaches and/or Directive 7.B for those TSO Responsible Permittee discharging to TSO Creeks.

**Table 6. TSO Compliance Reports and Submittal Schedule**

Due Date	Action/Document Required
April 12, 2024	Submit TSO Monitoring Plan
July 12, 2024	Submit Microbial Source Identification Work Plan <sup>[1]</sup>
January 31, 2025	Submit TSO Compliance Report #1
January 31, 2026	Submit TSO Compliance Report #2 & Submit Pollution Prevention Plan with Microbial Source Abatement Work Plan <sup>[1]</sup>
January 31, 2027	Submit TSO Compliance Report #3
January 31, 2028	Submit TSO Compliance Report #4
January 31, 2029	Submit Final TSO Compliance Report

[1] Only applicable for TSO Responsible Permittees discharging to TSO Creeks, identified in Table 3.c, and TSO Responsible Permittees discharging to TSO Beaches and electing to comply with Directive 2, identified in Table 3.b.

**7.A Required Information from TSO Responsible Permittees Discharging to TSO Beaches.**  
Compliance reports must:

1. Identify which method each TSO Responsible Permittees chose to comply with for each corresponding TSO Beach, either Directive 1 or Directive 2. If Directive 2 was selected, identify whether compliance with Directive 2.A or Directive 2.B was pursued;



2. Present all monitoring locations in a map and present all activities conducted by the TSO Responsible Permittees for each corresponding TSO Beach to comply with either Directive 1 or Directive 2;
3. Present all monitoring results collected by the TSO Responsible Permittees for each corresponding TSO Beach to comply with either Directive 1 or Directive 2. Data collected for Directive 1 or Directive 2.A must also be submitted in Excel CEDEN format;
4. Identify and demonstrate whether compliance with Directive 1 or Directive 2 was met by the TSO Responsible Permittees for each corresponding TSO Beach. Each TSO Responsible Permittee must provide a statement about whether they are in compliance with either Directive 1 or Directive 2. If compliance with Directive 1 or Directive 2 was not met, each TSO Responsible Permittee must identify and demonstrate if compliance with a pathway in Specific Provision 6.b.(3) was achieved during the Annual Report monitoring year.<sup>25</sup>
  - (i). If compliance with Directive 1, Directive 2, or a pathway in Specific Provision 6.b.(3) was not met, each TSO Responsible Permittee must describe the noncompliance and its cause, steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and the anticipated time the noncompliance is expected to continue. TSO Responsible Permittees must also report what corrective actions will be implemented to achieve compliance with Directive 1, Directive 2, or a pathway in Specific Provision 6.b.(3), as soon as practicable and no later than the next reporting year.
5. Present any additional monitoring locations in a map and/or identify other source identification methods that were implemented during the monitoring year to identify the sources causing exceedance of the Final Dry Weather WQBELs (as required by Specific Provision 6.d.(1)(a)) and the Interim Receiving Water Limitations in Directive 1 or the Interim Outfall Effluent Limitations in Directive 2;
6. Describe any actions taken or planned during the monitoring year to abate the sources causing exceedance of the Final Dry Weather WQBELs and the Interim Receiving Water Limitations in Directive 1 or the Interim Outfall Effluent Limitations in Directive 2. The TSO Responsible Permittees discharging to TSO Beaches and electing to comply with Directive 2 must:
  - (i). Describe the processes and activities that resulted in the generation and discharge of FIB and human waste indicators, such as, but not limited to HF183, into the MS4s during the monitoring year;
  - (ii). Describe bacteria source investigations conducted during the monitoring year, including anthropogenic sources identified during the investigations and actions taken or planned to abate the sources;
  - (iii). Summarize source control measures implemented to abate anthropogenic human and non-human bacteria sources, include an effectiveness assessment of source control measures used, and describe any changes that have been made to source control measures implemented over the monitoring year;

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<sup>25</sup> The monitoring year begins every October 1 and ends on September 30 of the following year.

- (iv). Describe all data collection and other field activities which are scheduled for the next monitoring year and provide other information relating to the progress of work, including, but not limited to, plans for source identification, investigation, and abatement of bacteria discharges in TSO Beaches.
- 7. Identify achievement or progress to comply with other TSO Directives, such as Directive 3 (if applicable), Directive 4, Directive 5 (if applicable), and Directive 6 (if applicable); and
- 8. Describe any modifications made during the monitoring year and/or modifications to be made in the next monitoring year to existing TMDL receiving water monitoring programs or, if applicable, describe any modifications made during the monitoring year to the required TSO Monitoring Plan, TSO work plans, and/or PPP that the TSO Responsible Permittees proposed to the San Diego Water Board Executive Officer or approved by San Diego Water Board Executive Officer.

#### **7.B Required Information from TSO Responsible Permittees Discharging to TSO Creeks.**

Compliance reports must:

1. Identify which compliance method each TSO Responsible Permittee chose to comply with for each corresponding TSO Creek, either Directive 2.A or Directive 2.B;
2. Present all monitoring locations in a map and present all activities conducted by the TSO Responsible Permittees for each corresponding TSO Creek, to comply with either Directive 2.A or Directive 2.B;
3. Present all monitoring results collected by the TSO Responsible Permittees for each corresponding TSO Creek to comply with Directive 2.A or Directive 2.B. Data collected for Directive 2.A must also be submitted in Excel CEDEN format;
4. Identify and demonstrate whether compliance with Directive 2.A or Directive 2.B was met by the TSO Responsible Permittees for each corresponding TSO Creek. Each TSO Responsible Permittee must provide a statement whether they are in compliance with either Directive 2.A or Directive 2.B. If compliance with Directive 2.A or Directive 2.B was not met, each TSO Responsible Permittee must identify and demonstrate if compliance with a pathway in Specific Provision 6.b.(3) was achieved during the Annual Report monitoring year.<sup>26</sup>
  - (i). If compliance with Directive 2.A, Directive 2.B, or a pathway in Specific Provision 6.b.(3) was not met, each TSO Responsible Permittee must describe the noncompliance and its cause, steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and the anticipated time the noncompliance is expected to continue. TSO Responsible Permittees must also report what corrective actions will be implemented to achieve compliance with Directive 2.A, Directive 2.B, or a pathway in Specific Provision 6.b.(3), as soon as practicable and no later than the next reporting year.
5. Present any additional monitoring locations in a map and/or identify other source identification methods that were implemented during the monitoring year to identify the sources causing exceedance of the Interim Outfall Effluent Limitations in Directive 2;

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<sup>26</sup> The monitoring year begins every October 1 and ends on September 30 of the following year.

6. Describe the processes and activities that resulted in the generation and discharge of FIB and human waste indicators, such as, but not limited to HF183, into the MS4s during the monitoring year;
7. Describe bacteria source investigations conducted during the monitoring year, including anthropogenic sources identified during the investigations and actions taken or planned to abate the sources;
8. Summarize source control measures implemented to abate anthropogenic human and non-human bacteria sources, include an effectiveness assessment of source control measures used, and describe any changes that have been made to source control measures implemented over the monitoring year;
9. Describe all data collection and other field activities which are scheduled for the next monitoring year and provide other information relating to the progress of work, including, but not limited to, plans for source identification, investigation, and abatement of bacteria discharges in TSO Creeks;
10. Identify achievement or progress to comply with other TSO Directives, such as Directives 3, 4, 5, and 6;
11. Describe any modifications made during the monitoring year to the required TSO Monitoring Plan, TSO work plans, and/or PPP that the TSO Responsible Permittees proposed to the San Diego Water Board Executive Officer or approved by San Diego Water Board Executive Officer; and
12. Describe all delays encountered or anticipated that may affect compliance with this TSO.

**Directive 8. Certification.** Any person signing a document submitted under this TSO must 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.”

## PART IV.

### MISCELLANEOUS PROVISIONS AND NOTIFICATIONS

1. **TSO Reopener.** The San Diego Water Board or its Executive Officer may reopen this TSO at its discretion or at the request of any of the identified TSO Responsible Permittees, if warranted. Lack of progress towards compliance with the applicable Final Dry Weather WQBELs for MS4 discharges and receiving waters addressed by this TSO may be cause to modify the conditions of this TSO. The San Diego Water Board or its Executive Officer may evaluate whether modifications or rescission of this TSO are appropriate upon the reissuance of the Regional MS4 Permit or the effective date of a Basin Plan amendment modifying the calculation or implementation of the Bacteria Total Maximum Daily Loads.
2. **Effective Date.** This TSO becomes effective immediately upon issuance by the San Diego Water Board.
3. **Enforcement.** Failure to comply with requirements of this Time Schedule Order may subject the Responsible Permittees to enforcement action, including but not limited to administrative enforcement orders requiring the Responsible Permittees to cease and desist from violations, imposition of administrative civil liability for violations of this Order and/or the Regional MS4 Permit pursuant to Water Code section 13350, not to exceed \$5,000 per day or \$10 per gallon if imposed administratively (\$15,000 per day or \$20 per gallon if imposed judicially) for each day in which the violation occurs and section 13385 in an amount not to exceed \$10,000 per day and \$10 per gallon in excess of 1,000 gallons if imposed administratively (\$25,000 per day and \$25 per gallon in excess of 1,000 gallons if imposed judicially) for each day in which the violation occurs, and referral to the State Attorney General for injunctive relief.
4. **Petition to State Water Board.** Any person aggrieved by this Time Schedule Order may petition the State Water Board to review the Time Schedule Order in accordance with Water Code section 13320 and the title 23 CCR section 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days following the date the San Diego Water Board adopts this Time Schedule Order. Copies of the laws and regulations applicable to filing petitions may be found on the State Water Board website at [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request. For instructions on how to file a petition for review, see the State Water Board website at: [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality/wqpetition\\_instr.shtml](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml)

I, David W. Gibson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Diego Region, on March 13, 2024.

David W. Gibson  
Executive Officer