
San Diego Regional Water Quality Control Board

October 31, 2017

Mr. Drew Kleis
Deputy Director
Transportation & Storm Water Department
City of San Diego
9370 Chesapeake Drive, Ste. 100, MS 1900
San Diego, CA 92123

Certified Mail – Return Receipt Requested

Article Number: 7016 2140 0000 3904 3055

In reply refer to / attn:

CW-650651:JEbsen

Subject: Famosa Slough Eutrophication Impairment

Mr. Kleis:

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) is responding to the letter the City of San Diego (City) sent us on August 31, 2017, regarding the City's commitment to develop and implement a Famosa Slough Total Maximum Daily Load (TMDL) or TMDL alternative for eutrophication.¹ Famosa Slough is listed as an impaired water body on the Clean Water Act section 303(d) list for eutrophication, which has been caused by excessive nutrients (total nitrogen and total phosphorus). The San Diego Water Board appreciates the collaborative interaction the City has had with our staff to develop the draft TMDL technical report and looks forward to continued collaboration on this issue.

The results from the TMDL development phase indicate that the primary nutrient sources entering Famosa Slough are discharges from the City's storm water conveyance system. The results also indicate controlling these discharges through activities that comply with the regional municipal storm water permit, Order No. R9-2013-0001, as amended (Regional MS4 Permit)² will restore water quality and protect beneficial uses in Famosa Slough.

¹One of the goals in [USEPA's 2013 Vision](#) for the Clean Water Act Section 303(d) Program encourages states to choose the most effective regulatory actions to promote and expedite restoration and protection of water quality. In addition to TMDL development, a major focus is to identify, evaluate and promote other regulatory actions that may be more immediately beneficial or practicable to achieving water quality standards. In this case, focused activities performed in compliance with the Regional MS4 Permit will be the alternative regulatory action used to expedite attainment of water quality standards in lieu of adopting a Famosa Slough TMDL as an amendment to the *Water Quality Control Plan for the San Diego Basin (Basin Plan)*.

² [Order No. R9-2013-0001](#), as amended by Order Nos. R9-2015-0001 and R9-2015-0100, NPDES No. CAS0109266 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.

The use of existing regulatory programs to promote cost effective and timely restoration activities to address the eutrophic conditions in Famosa Slough is consistent with the *Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options*.³

The San Diego Water Board requested that the City consider the use of the Regional MS4 Permit as an alternative regulatory action in lieu of finalizing the draft TMDL as a Basin Plan amendment. This allows the City to use adaptive management strategies as necessary to restore water quality. Based on the results of the TMDL development phase, the San Diego Water Board has determined that developing an implementation plan consistent with the Water Quality Improvement Plans required by the Regional MS4 Permit is an appropriate alternative regulatory action for restoring and protecting water quality in lieu of adopting a Basin Plan amendment. The City agreed with this alternative regulatory action in the aforementioned letter.

In pursuit of this alternative regulatory action, the City has requested that the San Diego Water Board consider the following items bulleted in the letter:

- 1) First bullet, page 1: *"In lieu of developing total maximum daily loads (TMDLs) to address nutrients in Famosa Slough, the City will address the Famosa Slough water quality conditions by utilizing the Municipal Separate Storm Sewer System (MS4) Permit §B.3.c alternative compliance process..."*

San Diego Water Board Response:

The San Diego Water Board agrees that compliance with the Regional MS4 Permit is the appropriate alternative regulatory action to address the eutrophic impairment in Famosa Slough in lieu of a Basin Plan amendment. The implementation activities and water quality reporting can be performed in compliance with the requirements for Water Quality Improvement Plans in the Regional MS4 Permit. The San Diego Water Board agrees that the City should identify eutrophication in Famosa Slough as a high priority water quality condition, and include the numeric goals, strategies and necessary water quality monitoring and reporting in the Water Quality Improvement Plan for the San Diego River Watershed Management Area.

The City has indicated that additionally it will invoke section B.3.c of the Regional MS4 Permit. This is a voluntary option available to MS4 Copermittees to demonstrate compliance with receiving water limitations as described in section A.2 of the Regional MS4 Permit. While pursuing the section B.3.c option can serve as the framework for implementing an alternative TMDL approach in Famosa Slough, the San Diego Water Board is not requiring the City to pursue the section B.3.c option to document actions and monitor results related to eutrophication in Famosa Slough.

³ [Resolution 2005-0050](#), *Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options*, June 16, 2005.

- 2) Second bullet, page 1: *“The Regional Board approves a 10-year compliance schedule as part of the above-mentioned alternative compliance process...”*

San Diego Water Board Response:

The San Diego Water Board agrees that a proposed 10-year compliance schedule beginning in January 2018 and ending in January 2028 is reasonable and practicable to address eutrophication in Famosa Slough. However, at this time the San Diego Water Board is unable to approve the proposed compliance schedule submitted as Attachment 2 to the August 31, 2017 letter. All updates to Water Quality Improvement Plans must be proposed in accordance with section F.2.c of the Regional MS4 Permit. The draft TMDL technical report and proposed compliance schedule may act as a guide for updates, but additional information related to Famosa Slough may be required for compliance with section F.2.c.(1)(c).

- 3) First bullet, page 2: *“The 10-year compliance schedule starts upon the Regional Board’s approval of the update to the City of San Diego’s Jurisdictional Runoff Management Plan (JRMP) for the Municipal Separate Storm Sewer System (MS4) Permit, tentatively January, 2018.”*

San Diego Water Board Response:

As discussed above, the San Diego Water Board agrees that a 10-year compliance schedule beginning in January 2018, and ending in January 2028 is reasonable and practicable to address eutrophication in Famosa Slough. Please note that the proposed compliance schedule in Attachment 2 to the August 31, 2017 letter stated that the compliance schedule would begin in April 2019 (upon acceptance of the updated Water Quality Improvement Plan) and conclude in January 2029. The San Diego Water Board assumes this is an error. The first step identified in the compliance schedule submitted by the City is to submit for review an updated Jurisdictional Runoff Management Plan (JRMP) and a Quality Assurance Project Plan (QAPP) in December 2017. The Regional MS4 Permit specifies that updates to JRMPs be done concurrently with updates to Water Quality Improvement Plans. In this case, submittal of the updated JRMP should be done in January 2018.

The updated plan should include the necessary actions the City will take to improve the eutrophic conditions in Famosa Slough and facilitate the process for updating the Water Quality Improvement Plan for the San Diego River Watershed Management Area. The City will need to ensure a water quality monitoring plan specifically for Famosa Slough and a QAPP are submitted to the San Diego Water Board for review and acceptance prior to beginning of the May 2018 monitoring program.⁴ The Regional MS4 Permit does not require that the San Diego Water Board approve JRMPs. The San Diego Water Board's approval is not needed to begin implementing JRMP and Water Quality Improvement Plan updates for Famosa Slough. The San Diego Water Board has proposed revisions to the City's compliance schedule accordingly (Attachment 1). Let us know if you have any concerns with these changes.

- 4) Second bullet, page 2: *"The Regional Board approves the MS4 Permit §B.3.c Water Quality Improvement Plan (WQIP) update in January 2019."*

San Diego Water Board Response:

The San Diego Water Board understands that January 2019 is the next practicable opportunity to submit an updated Water Quality Improvement Plan for the San Diego River Watershed Management Area that will identify eutrophication in Famosa Slough as a high priority condition. The requirements for updating Water Quality Improvement Plans are specified in the Regional MS4 Permit, and they include the important component of public participation. The City must comply with these requirements as specified in the Regional MS4 Permit. Additional information is required to invoke section B.3.c that includes establishing annual milestones as defined in section B.3.c. The City should include the relevant elements in Attachment 1 of this letter in the update to the Water Quality Improvement Plan. The San Diego Water Board will assess compliance with the Regional MS4 Permit, and acceptance of the Water Quality Improvement Plan and the B.3.c option after the final update is submitted in January 2019. Please note that the numeric goals, water quality improvement strategies, and schedules that have been developed for Famosa Slough are only one component of the B.3.c option. Copermittees pursuing the B.3.c compliance option must develop goals and targets that fully address the requirements set in the Regional MS4 Permit (see sections B.3.c(1)(a)(i-vii) and Attachment E of the Regional MS4 Permit).

- 5) Third bullet, page 2: *"The Regional Board considers the City's Draft TMDL Technical Report to meet the MS4 Permit §B.3.c RAA (Reasonable Assurance Analysis) requirements. The City submitted the draft TMDL Technical Report to the Regional Board on April 3, 2017, and will be submitting an updated final draft by the end of August 2017."*

⁴ Water quality data collected to demonstrate progress towards attaining final numeric goals must be [SWAMP](#) comparable.

San Diego Water Board Response:

The draft TMDL technical report developed by the City is a robust examination of Famosa Slough. While it may fully comply with requirements for developing a TMDL, it may not satisfy all of the requirements in section B.3.c in the Regional MS4 Permit. If the City wants to pursue compliance with section B.3.c when the City submits a Water Quality Improvement Plan for consideration, it must ensure that all of the elements required in section B.3.c are included, even if it means supplementing the information included in the draft TMDL technical report.

- 6) Fourth bullet, page 2: *“The alternative TMDL compliance schedule has two interim milestones: 40% waste load reduction by Year 5, and 80% waste load reduction by Year 8.”*

San Diego Water Board Response:

The San Diego Water Board agrees with establishing waste load reduction milestones for the purposes of setting measurable numeric goals for reducing nutrient loads into Famosa Slough. If the City chooses to invoke section B.3.c of the Regional MS4 Permit, then the City will need to develop measurable annual milestones as described in the Regional MS4 Permit. Annual milestones must clearly and directly be linked to or demonstrate meaningful progress that is made toward achieving final numeric goals. Annual milestones may consist of water quality improvement strategy implementation phases, interim numeric goals, or other acceptable metrics that demonstrate progress towards the final numeric goals. The City provided a proposed schedule as Attachment 2 to the letter dated August 31, 2017. In this schedule several of the milestones are repeated and some refer to demonstrating, “...0% attainment with required reduction in waste load allocations.” These milestones would not comply with the requirements in section B.3.c of the Regional MS4 Permit for meaningful milestones that demonstrate progress towards water quality improvements.

The Regional MS4 Permit requires that schedules incorporate the shortest practicable time required to implement strategies and achieve numeric goals. The City should consider setting the goal for attaining 40 percent of the necessary waste load reduction by the end of year 4 in 2021 (reported in January 2022) as a reasonable measure of progress. This will allow more time for the City to evaluate conditions and employ adaptive management strategies if necessary. These numeric goals and other annual milestones, as described in the Regional MS4 Permit, would need to be included in the Water Quality Improvement Plan update.

- 7) Fifth bullet, page 2: *“The nutrient pollutants (Total Nitrogen, Total Phosphorus, and Dissolved Oxygen) and biomass for a single water body in a watershed are acceptable to the Regional Board staff, instead of the pollutant requirement being applied to the total watershed.”*

San Diego Water Board Response:

The San Diego Water Board agrees that the City's focus on total nitrogen, total phosphorus, dissolved oxygen, and macroalgae biomass in Famosa Slough is appropriate to address the eutrophication issues. The Regional MS4 Permit allows for Watershed Management Areas to be separated into subwatersheds so that Copermittees can focus on water quality priorities and jurisdictional runoff management program implementation efforts by receiving water. The B.3.c option allows Copermittees to limit their focus on specific pollutants for specific impaired water bodies. This also limits the areas that are considered compliant with receiving water limitations for those specific pollutants and water bodies with specific goals, water quality improvement strategies, and schedules.

The draft TMDL technical report demonstrates that the primary sources of nutrient loading are direct discharges from the surrounding Famosa Slough watershed within the City of San Diego into Famosa Slough with only minor contributions from the larger San Diego River Watershed. The draft TMDL technical report also indicates that the necessary reductions in nutrient loading to improve water quality and restore beneficial uses can be accomplished entirely within the Famosa Slough watershed under the City's jurisdiction.

The draft TMDL technical report specifies the City will reduce nutrient loading in the form of total nitrogen and total phosphorus. The numeric targets that the City has identified to measure the water quality improvements are dissolved oxygen (increases in the average daily minimum) and macroalgae biomass (reductions in floating macroalgae biomass). One of the City's strategies to reduce macroalgae biomass is through macroalgae harvesting. Therefore, the water quality monitoring plan for Famosa Slough needs to identify a macroalgal condition at which harvesting would be conducted. Absent site-specific reasoning, the City should refer to analyses in the Santa Margarita River Estuary and include a threshold of 80 grams dry weight per meter squared and 50 percent cover in the monitoring areas to identify when macroalgae harvesting is necessary.⁵

The San Diego Water Board has included an expected schedule in Attachment 1 that outlines the City's proposed actions to address the eutrophic conditions in Famosa Slough. The San Diego Water Board will monitor the project progress based on the City's actions meeting this schedule.

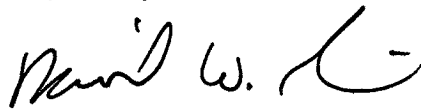
⁵ Sutula, M., J. Butcher, C. Boschen and M. Molina, 2016. *Application of Watershed Loading and Estuary Water Quality Models to Inform Nutrient management in the Santa Margarita River Watershed*. Technical Report 933. Southern California Coastal Water Research Project. Costa Mesa, CA. www.sccwrp.org/pub/technical_report_933.

This expeditious and adaptive approach corresponds with the San Diego Water Board's Practical Vision and a commitment to use resources in a strategic manner to protect and restore the health of the Region's waters, and to provide for meaningful evaluation on the success of that work. Using the Regional MS4 Permit is the most effective regulatory tool to address water quality impairments in Famosa Slough, and it serves as an alternative to adopting a TMDL as a Basin Plan amendment. The San Diego Water Board appreciates the City's ongoing efforts to protect and restore Famosa Slough.

As such, a workshop to inform the public on the goals and timeline for the Famosa Slough project is tentatively scheduled at the San Diego Water Board meeting on December 13, 2017. We look forward to the City's participation in that item.

If you have any questions please contact Ms. Jody Ebsen by email at Jody.Ebsen@waterboards.ca.gov or by phone at (619) 521-3965.

Respectfully,



DAVID W. GIBSON
Executive Officer

Attachment 1: Revised Expected Schedule to Address Eutrophic Impairment in Famosa Slough

Cc (via email):

Paz Gomez, Deputy Chief Operating Officer, Infrastructure/Public Works, City of San Diego
Alejandra Gavaldon, Director of Infrastructure and Water Policy, City of San Diego
Kris McFadden, Director, Transportation & Storm Water Department, City of San Diego
Davin Widgerow, Deputy City Attorney, City Attorney's Office, City of San Diego
Ruth Kolb, Program Manager, Transportation & Storm Water Department, City of San Diego
Brianna Menke, Senior Planner, Transportation & Storm Water Department, City of San Diego
James Smith, Assistant Executive Officer, San Diego Water Board
Jeremy Haas, Environmental Program Manager, San Diego Water Board
Cynthia Gorham, Senior Environmental Scientist, San Diego Water Board
Adriana Nunez, Attorney, State Water Resources Control Board
Laurie Walsh, Senior Water Resource Control Engineer, San Diego Water Board
Christina Arias, Water Resource Control Engineer, San Diego Water Board
Jody Ebsen, Engineering Geologist, San Diego Water Board

Attachment 1

<u>Revised Expected Schedule to Address Eutrophic Impairment in Famosa Slough</u> ⁶		
Yr.	Activity	Month/Year
0	Properly implement an illicit discharge detection and elimination program in compliance with existing requirements of the Regional MS4 Permit to effectively prohibit non-storm water discharges into the MS4 system that discharge into Famosa Slough. Implementation includes illicit discharge detection and elimination, and the assessment of accomplishments / progress.	Ongoing
0	City prepares Jurisdictional Runoff Management Program (JRMP) Compliance Monitoring Plan and QAPP updates for Famosa Slough. City submits plan and QAPP to San Diego Water Board for review.	Dec 2017
<u>01</u>	City modifies the JRMP to include water quality monitoring activities and weekly enforcement patrols specific to Famosa Slough. Modifications to the JRMP will also include the addition of this schedule and a statement committing the City to develop and implement Water Quality Improvement Plan strategies, Load Reduction Plans, and Implementation Plans (patrols and monitoring) for the Famosa Slough project.	Jan 2018
<u>01</u>	City initiates the preparation of the San Diego River Watershed Management Area (WMA) Water Quality Improvement Plan (WQIP) Goals, Strategies, Load Reduction Plans, Implementation Plans, and Schedules that align with the City's Famosa Slough final draft TMDL technical report, the San Diego Water Board's Famosa Slough staff report and the schedule in this attachment and Staff Reports.	Jan 2018
<u>01</u>	Begin compliance monitoring program for the Slough.	May 2018
<u>01</u>	Begin algae harvesting in response to excessive algal blooms.	May 2018
<u>01</u>	City submits for review to the San Diego Water Board, the WQIP goals, strategies, and schedules associated with Famosa Slough project for acceptance to the January 2019 WQIP update. Update materials will also be presented to San Diego River WMA Consultation Panel in July 2018.	July 2018
<u>02</u>	City incorporates WQIP goals, strategies, monitoring plan, QAPP, and schedules associated with Famosa Slough project into San Diego River WQIP Annual Report.	Jan 2019
<u>02</u>	San Diego Water Board approves <u>accepts the</u> WQIP update for Famosa Slough within 90 days of WQIP Annual Report submittal; compliance schedule begins.	Apr 2019

⁶ This schedule is a revision, shown in strikeout/underline format, of the City's proposed alternative TMDL schedule submitted as Attachment 2 to the letter dated August 31, 2017

<u>Revised Expected Schedule to Address Eutrophic Impairment in Famosa Slough</u> ⁶		
Yr.	Activity	Month/Year
4 <u>3</u>	City submits annual WQIP Report and annual Monitoring Report for the Slough demonstrating <u>achievement of annual milestone(s) that complies with section B.3.c of the Regional MS4 Permit.</u> 0% attainment with required reduction in waste loads.	Jan 2020
2 <u>4</u>	City submits annual WQIP Report and annual Monitoring Report for the Slough demonstrating <u>achievement of annual milestone(s) that complies with section B.3.c of the Regional MS4 Permit.</u> 0% attainment with required reduction in waste loads.	Jan 2021
3 <u>5</u>	City submits annual WQIP Report and annual Monitoring Report for the Slough demonstrating <u>40%</u> attainment with required reduction in waste loads.	Jan 2022
4 <u>6</u>	City submits annual WQIP Report and annual Monitoring Report for the Slough demonstrating <u>achievement of annual milestone(s) that complies with section B.3.c of the Regional MS4 Permit.</u> 0% attainment with required reduction in waste loads.	Jan 2023
5 <u>7</u>	City submits annual WQIP Report and annual Monitoring Report for the Slough demonstrating <u>achievement of annual milestone(s) that complies with section B.3.c of the Regional MS4 Permit.</u> 40% attainment with required reduction in waste loads.	Jan 2024
6 <u>8</u>	City submits annual WQIP Report and annual Monitoring Report for the Slough demonstrating <u>achievement of annual milestone(s) that complies with section B.3.c of the Regional MS4 Permit.</u> 40% attainment with required reduction in waste loads.	Jan 2025
7 <u>9</u>	City submits annual WQIP Report and annual Monitoring Report for the Slough demonstrating 40 <u>80</u> % attainment with required reduction in waste loads.	Jan 2026
8 <u>10</u>	City submits annual WQIP Report and annual Monitoring Report for the Slough demonstrating <u>achievement of annual milestone(s) that complies with section B.3.c of the Regional MS4 Permit.</u> 80% attainment with required reduction in waste loads.	Jan 2027
9 <u>11</u>	City submits annual WQIP Report and annual Monitoring Report for the Slough demonstrating 80 <u>100</u> % attainment with required reduction in waste loads.	Jan 2028
10	City demonstrates 100% attainment of waste load reductions and achievement of numeric targets/ goals.	Jan 2029