

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT: Derek Beauduy
MEETING DATE: October 12 and 13, 2021

ITEM: 7

Municipal Regional Stormwater NPDES Permit – Municipalities and Flood Management Agencies in Alameda County, Contra Costa County, San Mateo County, Santa Clara County, and the Cities of Fairfield, Suisun City, and Vallejo in Solano County – Hearing on Tentative Order

DISCUSSION

This item is a testimony hearing on the Tentative Order for the reissuance of the Municipal Regional Stormwater NPDES Permit (MRP) for 79 municipalities and local agencies (Permittees) in Alameda, Contra Costa, Santa Clara, and San Mateo counties, and the cities of Fairfield, Suisun City, and Vallejo. The Tentative Order and its supporting Fact Sheet (Appendix A), which were public noticed on September 10, 2021, are available for public comment through November 9, 2021. Appendix B contains a summary of proposed changes from the current permit.

This hearing provides an opportunity for the Permittees and other stakeholders to communicate their interests and comments directly to the Board and for Board members to ask questions of Board staff and stakeholders. Testimony may be presented on all sections of the Tentative Order, with the following planned areas of focus:

October 12: Provisions C.3 – New Development and Redevelopment; C.8.d – Low Impact Development Monitoring; C.10 – Trash Load Reduction; C.8.e – Trash Monitoring; and C.17 – Discharges Associated with Unsheltered Homeless Populations.

October 13: Provisions C.8 – Water Quality Monitoring; C.11 – Mercury Controls; C.12 – PCBs Controls; C.14 – Bacteria Control for Impaired Waterbodies; and all other provisions.

A hearing will be scheduled, tentatively set for the February 2022 Board meeting, for the Board to consider adoption of the Tentative Order or a revised version after Board staff has reviewed and prepared responses to all comments received during the public comment period.

Development of the Tentative Order and coordination with Permittees began in late 2018 and involved Steering Committee meetings and provision-specific workgroups where Water Board and Permittee staff have discussed revisions to key elements of the current permit. Water Board staff also met with U.S. EPA, environmental groups, and other interested stakeholders during development of the Tentative Order.

The Tentative Order would cover all Permittees with similar consistent requirements as in the previous permit, with some adjustment for permittee size, type, and location, and continues to reflect the following priorities:

- **Consistent and Accountable Actions** – Requirements specify, with accountability, the level of effort for the basic elements of a municipal stormwater management program, which are maintained with minor changes from previous permits, consistent with the federal standard to effectively prohibit non-stormwater discharge and to require controls to reduce the discharge of

pollutants to the maximum extent practicable. These elements include municipal operations activities, industrial and construction site controls, illicit discharge abatement, new and redevelopment treatment measures, public outreach and participation, and control of non-stormwater discharges.

- **Prioritization and Phasing of New Requirements** – Priority areas include new requirements to reduce discharges of trash, bacteria, PCBs, and mercury, and for green infrastructure implementation, and tracking and reporting requirements for discharges associated with unsheltered homelessness, asset management, and stormwater program cost reporting. These new requirements will demand new efforts and coordination. For that reason, the requirements are generally phased over several years.
- **Implementation of TMDLs** – This permit is the implementation vehicle for wasteload allocations for urban runoff associated with Board-adopted Total Maximum Daily Loads (TMDLs), and permit requirements are consistent with implementation plans adopted with the TMDLs. The requirements reflect the current state of knowledge and implementation potential of controls to reduce these pollutants.

Significant Revisions. Some of the Tentative Order’s significant changes include: new or revised requirements for green infrastructure implementation for new development, redevelopment, and retrofit projects; revised requirements for water quality monitoring; revised requirements for trash load reduction; revised requirements for PCBs and mercury load reductions; and new and revised requirements for bacteria control for impaired waterbodies.

New Development and Redevelopment (Provision C.3). The Tentative Order would largely continue the requirements from the current permit to implement low impact development measures. However, there are some significant proposed changes. These include: expanding the number of projects required to implement the LID approach and green infrastructure-based runoff treatment, by reducing the impervious surface threshold triggering those requirements to 5,000 square feet from the current 10,000 square feet, adding a new category for detached single family homes – which are currently subject to only broad qualitative expectations around site design – that have 10,000 square feet or more of new or replaced impervious surface, and adding a new category for road projects that add or significantly rebuild one acre or more of impervious surface. This category would exclude routine maintenance. These changes are necessary to ensure the permit is consistent with the maximum extent practicable implementation standard. They would be consistent with other municipal stormwater permits in California, Oregon, Washington State, and elsewhere.

The Tentative Order would allow an optional submittal which would characterize the benefit associated with tree-based stormwater treatment systems, subject to Executive Officer approval. Additionally, certain Permittees may submit a proposal during the Permit term for an alternative compliance program, involving the banking of stormwater treatment credits, which would lead to the Board’s consideration of a Permit amendment. The program would enable Permittees to coordinate funding from small and other projects where green infrastructure implementation is infeasible or challenging to complete and instead do more-effective, multi-benefit local or regional projects. Additionally, while the Tentative Order broadly maintains the “Special Project” category that allows certain denser or urban core development or redevelopment projects more flexibility in implementing required stormwater treatment controls, it would change the focus of one allowable Special Projects category to affordable housing from larger projects that are in the vicinity of public transportation. That would recognize the water quality benefit associated with providing services and housing to unsheltered homeless people, specifically reductions in discharges of trash and sewage associated with unsheltered homelessness.

Finally, the Tentative Order would continue the green infrastructure planning efforts begun under the current permit. Recognizing the substantial area of urban impervious surface within MRP permittees’ jurisdictions (e.g., roads and other municipal impervious surfaces) that is unlikely to be addressed by new or redevelopment projects, and the role green infrastructure retrofit must play to help achieve

urban runoff wasteload allocations for mercury and PCBs, the Tentative Order proposes minimum expectations for treatment of stormwater runoff from impervious surfaces through green infrastructure retrofit of impervious surfaces.

Water Quality Monitoring (Provision C.8). Significant proposed changes include the addition of Low Impact Development (LID) Monitoring and Trash Monitoring, the removal of Creek Status Monitoring and Stressor/Source Identification Projects, and changes to the Pollutants of Concern (POC) Monitoring (these include monitoring for mercury, PCBs, contaminants of emerging concern (CECs), and copper); Pesticides and Toxicity Monitoring requirements remain unchanged. LID Monitoring requirements are intended to measure the compliance and effectiveness of LID controls. Trash Monitoring requirements have been moved from Provision C.10 in the current permit, and are intended to verify whether Permittees' trash control actions to date have effectively prevented trash from their jurisdictions from discharging to receiving waters, and to evaluate whether discharges of trash from Permittees' jurisdictions where full trash capture equivalency has been achieved are causing and/or contributing to adverse impacts in receiving waters. Changes to POCs monitoring include elimination of nutrients from the list of analytes, reduction in monitoring effort for mercury and copper for all Permittees, additional reduction in monitoring effort for mercury and PCBs for the smaller San Mateo County and Contra Costa County Permittees, and increased monitoring effort for CECs such as per- and polyfluoroalkyl substances (PFAS).

Trash Load Reduction (Provision C.10). The Tentative Order would require Permittees to install and maintain trash capture devices, or implement other trash control measures, to reduce trash loads by 90 percent from 2009 baseline conditions by June 30, 2023, and 100 percent (or no adverse impacts to receiving waters) by June 30, 2025. This is a three-year extension from the 100 percent trash reduction target of July 1, 2022, in the current permit. Permittees unable to achieve the 100 percent trash reduction requirement by 2025 could implement an approved Direct Discharge Control Plan (DDCP), which would give them an additional year, until June 30, 2026, to achieve compliance with the 100 percent reduction requirement.

The Tentative Order would allow Permittees to receive up to ten percent credit toward trash load reduction compliance for new jurisdiction-wide source control actions. New controls are those that control persistent trash items other than those addressed under previous permits (e.g., foam foodware and single-use plastic bags). Permittees would not be able to claim a jurisdiction-wide source control load reduction value after June 30, 2025. Similarly, trash load reduction offsets for creek and shoreline cleanups and implementation of Direct Discharge Control Plans (DDCPs) would continue to be allowed until June 30, 2025, or, for DDCPs, until June 30, 2026, for those Permittees needing additional time to reach the required 100 percent reduction. Permittees' new and revised DDCPs would have to demonstrate systematic and comprehensive implementation of control actions to reduce direct discharges related to illegal dumping and unsheltered homeless populations.

The Tentative Order would also require Permittees to submit in their September 2024 Annual Report a program-wide operation and maintenance report to share lessons learned. The report would include a description of effective maintenance frequencies and approaches, and a detailed description of common issues associated with the operation and maintenance of full trash capture devices, device siting and access issues, device types that are prone to plugging, or other factors that may impact effective operation and maintenance of full trash capture devices.

PCBs and Mercury Control (Provisions C.12 and C.11). The Tentative Order includes requirements to implement specific mercury and PCBs control measures to achieve load reductions toward attainment of applicable San Francisco Bay PCBs and Mercury TMDL wasteload allocations. It builds on lessons learned both from more than two decades of stormwater monitoring as well as control measure implementation experience from the current and previous permits. The required control measures to achieve PCBs load reductions include: identifying and abating contaminated source properties, implementation of control measures in old industrial land use, managing PCBs in bridge

roadway caulk, managing PCBs in oil-filled electrical equipment, managing PCBs-containing material in demolition waste material, and implementing green stormwater infrastructure. The required control measures to achieve mercury load reductions similarly include source property identification and abatement, control measure implementation in old industrial areas, and green stormwater infrastructure implementation.

For context, the San Francisco Bay PCBs TMDL requires attainment of wasteload allocations by 2030, which means that total loading for all Permittees combined must be no more than 1.6 kg/yr. This total allowable load translates to a load reduction of about 14.4 kg/yr from the estimated load from all Permittees when the TMDL was adopted. The San Francisco Bay Mercury TMDL requires attainment of wasteload allocations by 2028, which is a total loading of 82 kg/yr for all urban runoff in the region. This translated to a load reduction of about 78 kg/yr from the estimated load when the TMDL was adopted, but an improved loading estimate suggests that a reduction of only about 40 kg/yr is now required.

The Tentative Order would establish, for each control measure, an enforceable accountability metric that specifies an expected implementation intensity and which is used both to track performance and determine compliance. Using the load reduction accounting system relating accountability metrics and load reductions developed and refined during the current permit term, implementation of the control measures at the intensity required to achieve the accountability metrics for all control measures would result in total estimated load reductions of 1.6 kilograms PCBs/yr and 10 kilograms mercury/yr by the end of the permit term.

Monitoring data collected over the last two decades have shown that, for mercury and especially PCBs, heavily contaminated source properties and associated contaminated drainage areas are concentrated in old industrial land use areas fringing the Bay. Accordingly, the Tentative Order would require Permittees to continue to search for contaminated source properties and to focus implementation of control measures in these areas. Finding contaminated properties and addressing ongoing moderate contamination in these formerly old industrial bayside areas are critical elements of the control measure program to reduce PCBs loads to the Bay and will also result in some mercury load reductions. Moreover, addressing contamination in these areas promotes environmental justice because old industrial areas are often near where historically disadvantaged communities have been compelled to live. Removing contamination from these areas helps improve the quality of life for these communities. Additionally, the PCBs and other contaminants from these older industrial areas are transported to the Bay and cause some popular fish species caught from nearby shoreline fishing locations used by local anglers to be unsafe to consume.

Bacteria Control for Impaired Waterbodies (Provision C.14). The Tentative Order includes updated requirements for the City of Pacifica and San Mateo County to attain their San Pedro Creek and Pacifica State Beach Bacteria TMDL wasteload allocations. The Tentative Order also includes new requirements to attain wasteload allocations for two bacteria TMDLs adopted after the current permit was issued. These are for the Marina Lagoon Beaches Bacteria TMDL that applies to the City of San Mateo and the Pillar Point Harbor/Venice Beach Bacteria TMDL that applies to City of Half Moon Bay and San Mateo County. In addition, the Tentative Order also includes requirements for the cities of Mountain View and Sunnyvale for discharges that may be causing or contributing to exceedances of bacteria water quality objectives in waters with no established TMDL. These latter requirements are consistent with requirements in implementation plans adopted with bacteria TMDLs, and all Provision requirements reflect the current state of knowledge and implementation potential of controls to reduce bacteria in discharges from municipal storm drain systems.

Other Revisions. The Tentative Order includes a number of other revisions or additions to current permit requirements. These include:

Exempted and Conditionally Exempted Discharges (Provision C.15) – The Tentative Order would change requirements for discharges of chlorinated water and firefighting foam associated with emergency firefighting activities. The main change is a requirement that the Permittees form a workgroup, with Water Board staff and other key stakeholders, to review existing BMPs and standard operating procedures (SOPs) for mitigating potential and actual environmental impacts from discharges associated with emergency firefighting activities, revise the BMPs/SOPs as needed, or propose new ones. The Permittees would then be required to implement that workgroup’s recommendations. These changes are proposed in response to fires during the current permit whose discharges caused significant adverse impacts to receiving waters, e.g., fish kills.

Discharges associated with unsheltered homeless populations (Provision C.17) – This new provision would require Permittees to use results from biennial point-in-time census surveys and related information (e.g., databases, complaint logs) to identify the scope of and help manage discharges of trash and sewage associated with unsheltered homeless populations. In addition, Permittees would be required to collectively develop a best management practice report that identifies effective practices to manage those discharges. Permittees would also be required to report on the control measures being implemented and the approximate portion and locations of unsheltered homeless populations being served by those measures, as well as the unmet need: the portion and location of the unsheltered homeless population not fully served by those measures.

San Mateo County Sediment Controls (Provision C.18) – This new provision would implement the Pescadero and Butano Creeks Watershed Sediment TMDL and the San Gregorio Creek Water Quality Improvement Plan. It would require the County to inventory their roads in these watersheds, identify potential erosion issues, and develop a prioritized list of actions to reduce road-related erosion from County roads. The County would be required to implement and complete by 2027 twenty percent of the control measures identified in the Prioritized List and Schedule of Actions.

Cost Reporting (Provision C.20) – This new provision would require Permittees to develop a cost reporting framework in 2022 and annually submit cost information starting in 2024. The intent is to implement the fiscal analysis requirements of federal regulations and provide a means to improve and track the cost of compliance with permit requirements. Permittees would report costs based on program areas corresponding to relevant MRP provisions and describe the source of funds and cost categories (e.g., capital, land, personnel, construction, operation). The cost reporting would provide data to assess costs of different program areas, allow for broad comparisons to identify trends over time, and support future funding initiatives to support program implementation.

Asset Management (Provision C.21) – This new provision would implement federal regulations by requiring Permittees to develop and implement an Asset Management Plan to ensure the satisfactory operation and maintenance of their treatment and control systems, like green stormwater infrastructure and trash capture devices. It has been included in part to ensure the MRP continues to meet the maximum extent practicable standard by incorporating requirements adopted in other NPDES municipal stormwater permits, and specifically permits adopted by U.S. EPA.

Process and Next Steps. We will continue to pursue constructive dialogue with the Permittees and interested stakeholders. Subsequent to the close of the public comment period on November 9, 2021, we will prepare responses to comments and revise the Tentative Order as appropriate. As noted above, we anticipate bringing the Tentative Order or a revised version to the Board for consideration of adoption at its February 2022 meeting.

APPENDICES

- A. Tentative Order
- B. Summary of Proposed Changes

Appendix A

Tentative Order

The Tentative Order is available online at:

https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/

To download a copy of the Tentative Order, please click on the “Municipal Regional Permit Reissuance” tab and the second bullet on that tab, “Municipal Regional Stormwater NPDES Permit Tentative Order – September 10, 2021.”

It may be downloaded directly by clicking on the following link:

[https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/MRP/Compiled%20Order%20and%20All%20Attachments%20\(RS-ACC\).pdf](https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/MRP/Compiled%20Order%20and%20All%20Attachments%20(RS-ACC).pdf)

Appendix B

Summary of Changes