



CITY OF BRISBANE

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July 2, 2015

Mr. Bruce Wolfe
Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Comments on Tentative Order for Reissued NPDES Stormwater Municipal Regional Permit

Dear Mr. Wolfe:

The City of Brisbane appreciates this opportunity to comment on the Tentative Order for the reissued NPDES stormwater municipal regional permit ("MRP 2.0") that was recently released by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) staff. Our comments reflect the importance of developing permit requirements that are flexible, practical, and cost-effective while meeting the challenges of continuing to protect water quality in our local creeks and San Francisco Bay. Our intent is for these comments to contribute to a constructive dialog that will result in additional permit revisions.

Please note that this letter focuses on our highest priority areas of concern, which are Provisions C.3 (New Development and Redevelopment, especially the Green Infrastructure provision), C.10 (Trash Load Reduction), and C.11/12 (Mercury and PCBs Controls). Of particular concern is that Provision C.12 (PCB Controls) continues to fall well short of providing Permittees with a clear and feasible pathway to attaining compliance. Please see the below sections for more details.

For detailed comments on other sections of the permit, please refer to the comment letter submitted separately by the San Mateo Countywide Clean Water Program (SMCWPPP). We concur with and support all of SMCWPPP's comments and incorporate them here by reference.

C.3 - NEW DEVELOPMENT AND REDEVELOPMENT

C.3.b.i - Regulated Projects

Provision C.3.b requires that any Regulated Project that was approved before C.3 requirements were in effect (i.e., does not have a stormwater control plan) and has not begun construction before MRP 2.0 takes effect, must comply with provisions C.3.c and C.3.d (LID treatment and sizing requirements).

- **Issue:** The City Attorney has opined that we do not have the legal authority to impose new requirements on projects with approved entitlements or development agreements, and therefore will face non-compliance with this requirement. Furthermore, it may be difficult for a project that has already received approvals and conformed its site layout to

city zoning requirements, to change its site design and layout after approval to accommodate LID treatment measures required by C.3.c and C.3.d.

Requested Revision: Delete this requirement. It would have minimal water quality benefit and would likely lead to legal battles with developers. Only a small number of projects and a small percentage of impervious surface created/replaced in the region would be subject to this requirement. However, if the requirement remains, then at a minimum include language to allow flexibility in implementation (for example, “provide treatment to the extent feasible” and allow use of media filters) for all projects that have prior approved discretionary planning entitlements.

C.3.j - Green Infrastructure Planning and Implementation

Provision C.3.j.i requires each Permittee to develop a GI Plan. The GI Plan must include: mechanism to prioritize and map potential GI project areas; maps and lists generated by this mechanism, for implementation within 2, 7, and 12 years of the Permit effective date; targets for amounts of retrofitted impervious surface within 2, 7, 12, 27, and 52 years; tracking and mapping of installed GI systems; streetscape design and construction details and standards; a list of updates and modifications to existing related Permittee planning documents; and reporting on all of the above elements. Permittees must also prepare and submit annually a list of planned and potential GI projects, based on a review of capital improvement projects, and a summary of how each project will include GI to the Maximum Extent Practicable (MEP) or why it was impracticable to implement GI.

- **Issue:** The language in Provision C.3.j needs to be consistent with the expectations in Provisions C.11 and C.12 for achieving PCB and mercury load reductions with GI. Discussions with Regional Water Board staff on C.11 and C.12 have suggested that load reductions required by GI over the MRP 2.0 permit term can be accomplished by private development and redevelopment, whereas C.3.j only refers to public retrofits.

Requested Revision: Make more explicit in C.3.j (as well as in C.11/12) that private development and redevelopment as well as public projects will count toward meeting PCB and mercury load reductions, and that constructed public GI projects within the permit term are not required for compliance with GI pollutant load reductions.

- **Issue:** Developing a comprehensive GI Plan will take time and significant resources, and the timeframes in the Tentative Order for completion of the Plan are unrealistic. For example, the framework for the GI Plan has to be developed and approved by local governing bodies or city/county managers within one year of the Permit effective date. This is a very short timeframe given the effort required to coordinate and educate internal departments, educate upper level staff and elected officials, prepare the framework, conduct resource planning, and accommodate lead times for bringing the framework to governing bodies. Additionally, the GI Plan must be completed and submitted with the 2019 Annual Report (three and one-half years from the expected Permit effective date). Completing a GI Plan will be a complex and time-intensive process that will require significant municipal interdepartmental coordination and resources. Prioritization and mapping of potential and planned projects may not be able to be completed within two years of the Permit effective date.

Requested Revision: Provide additional time to complete and obtain governing body

approval of the GI framework; e.g. extend the deadline to the required reporting date of September 15, 2017. Allow the entire permit term to complete the GI Plan. Eliminate the two-year deadline to complete prioritization, mapping, and initiate implementation of planned/potential projects (before the GI Plan is completed), and include these efforts in the GI Plan development period.

- **Issue:** Prioritization and mapping of potential and planned projects will be a major, resource-intensive effort, especially for those smaller jurisdictions that do not have GIS data layers already available. Additional flexibility in approaches to mapping and prioritization is needed. In addition, the time intervals for planning should be aligned with fiscal years, and made consistent with the time intervals for load reductions in C.11/12.

Requested Revision: The mechanisms used to develop the GI Plan and priorities should include other less complex tools in addition to the GreenPlan-IT tool. The time intervals should be changed to FY 19-20, FY 24-25, and FY 29-30 (to align with C.11/12 load reduction reporting intervals of 2020 and 2030).

- **Issue:** Provision C.3.j.i(1)(c) requires Green Infrastructure Plans to include “targets for the amount of impervious surface within the Permittee’s jurisdiction to be retrofitted” within 2, 7, 12, 27, and 52 years of the Permit effective date. It is unclear how these “targets” are to be established by each Permittee. In addition, the timeframes for establishing “targets” (we would prefer the term “projections”) for impervious surface retrofitted do not line up with the C.11/12 load reduction timeframes, making it difficult to calculate projected load reductions.

Requested Revision: Allow the development of “projections” instead of “targets”, and allow Permittees to include projected private development as well as public projects. Allow projections to be developed for the years 2020, 2030, 2040, and 2065, consistent with C.11/12 and with other municipal planning documents.

- **Issue:** Provision C.3.j.ii requires early implementation of GI, focused on identifying and implementing public projects that have potential for GI measures (including LID treatment) within the permit term. It is unclear how compliance with this section will be determined. The process for review of planned capital projects needs to be more defined and objective, to avoid future disagreements with Regional Water Board staff as to what are “missed opportunities”. There also needs to be recognition that while it may be technically feasible to add LID features to a capital project, the funding for the additional features and the ongoing maintenance of the LID features may not be available. Implementation (i.e., design and construction) during the Permit term of GI projects that are not already planned and funded will extremely challenging for most Permittees.

Requested Revision: Efforts during the MRP 2.0 term should focus on development of long-term GI Plans and opportunistic implementation of GI projects where feasible and where funding is available. Add language proposed by the Permittees as early input to the Administrative Draft Permit (as shown in the footnote below¹) that would allow for

¹ Proposed language: “Permittees shall review and analyze appropriate projects within the Permittee’s capital improvement program, and for each project, assess the opportunities and associated costs of incorporating LID into the project. The analysis shall consider factors such as grading and drainage, pollutant loading associated with adjacent land uses, uses of available space with the project area, condition of existing infrastructure, opportunities to achieve multiple benefits such as providing aesthetic and recreational resources, and potential availability of incremental funding to support LID elements

consistent review of capital projects for GI opportunities, based on specified criteria.

C.10 - TRASH LOAD REDUCTION

C.10.a.ii.b – Trash Generation Area Management (Private Drainage Areas)

- **Issue:** Provision C.10.a.ii.b (Trash Generation Area Management) requires Permittees to map and assess ALL private drainages 5,000 ft² and greater, determine the level of trash present in these areas, and ensure that no further actions are needed. Mapping would require a significant undertaking that would result in minimal water quality benefit. Ensuring that private drainages are at a “low” trash generation level does not require mapping. Areas can be identified by modifying existing municipal inspection programs already in place.

Requested Revision: Remove the mapping requirement from this provision. As an alternative, Permittees should be required to: 1) identify high priority areas that generate moderate, high, or very high levels of trash and are plumbed directly to their storm drain systems, and 2) cause these areas to be managed to a level equivalent to the performance of a full capture system or to a low trash generation level.

- **Issue:** Throughout the Bay Area, thousands of Green Infrastructure (C.3 compliant) facilities have been constructed on properties over the last 10+ years. These facilities were designed consistent with the new and redevelopment requirements and perform at a level similar to typical trash full capture systems. These systems have been designed to prevent flooding and effectively remove pollutants from stormwater. Provision C.10.a.iii (Mandatory Minimum Full Trash Capture Systems) currently requires Permittees to install a screen (5mm) to the overflow pipes of all Green Infrastructure facilities before these devices can be considered full capture systems. Screening the overflow pipes would be out of the scope of the municipality’s authority, as nearly all treatment facilities are privately owned and maintained. Additionally, adding screens to existing facilities would have unknown effects to the performance of these systems and would likely increase the maintenance and flooding if retrofitted with screens. The requirements for the sizing and design of green infrastructure facilities are now well established. The Water Board previously established provisions requiring these facilities based on their ability to remove pollutants attached to small particles less than 0.1mm in size, but is now requiring modifications for trash items that are at least 20 times greater in size. Trash items ARE effectively removed by these existing facilities without modification.

Requested Revision: Remove the requirement for “screening” all Green Infrastructure treatment facilities installed and maintained consistent with provision C.3, and in the Permit deem that these facilities are equivalent to full capture systems.

C.10.b.i.a – Maintenance (of Full Trash Capture Systems)

- **Issue:** Provision C.10.b.i.a (Maintenance of Full Capture Systems) currently requires maintenance of small capture devices based on the level of trash generated in the surrounding area. Maintenance frequencies based on trash generation is inconsistent with the experience and knowledge of Permittees. Maintenance frequencies are site

along with other relevant factors... Permittees will collectively evaluate and develop guidance on the criteria for determining practicability of incorporating green infrastructure measures into planned projects.”

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specific and are mostly affected by the amount of vegetative material (typically comprising over 85% of the debris captured by a device) that reaches the device and the size of the inlet vault, not the amount of trash generated in the surrounding area.

Requested Revision: Revise the TO to require Permittees to develop and implement Permittee-specific maintenance programs to achieve/maintain full capture criteria. Permittees would then report on the implementation of their maintenance programs, adaptation of these programs and any issues that need to be addressed. Tailoring maintenance programs to local maintenance needs of specific devices is the only way to ensure adequate maintenance of these devices into the future.

C.10.b.iv - Source Controls

The most important actions that can be taken by Permittees are those that eliminate the generation of litter prone items in perpetuity. Bay Area Permittees have been national leaders on taking actions to eliminate the sale or distribution of litter prone items. Nearly every Permittee in the Bay Area has adopted an ordinance focused at eliminating certain types of trash in our creeks and the Bay. These actions took significant political support, public resources and were done in partnership with environmental NGOs.

- **Issue:** Permittees to-date have focused on instituting a number of different types of source control actions. Data collected by Permittees indicated that each individual action reduces between 5 and 10% of the trash found in stormwater on average. These reductions are likely not observed by visual assessment protocols because they are only precise enough to detect reductions greater than 25%. Therefore, without a specific reduction value for source controls, reductions associated with these actions may never be valued.

The maximum of 5% reduction for all source control actions is arbitrary and inconsistent with our current knowledge of the percentage of trash in stormwater associated with specific litter-prone items associated with source control actions. The programs put into place (such as the Trash Container Management Policy required in the solid waste franchise agreements negotiated between the city and private haulers) to address these litter prone items are effective and directly impact stormwater quality.

Requested Revision: Revise the TO to increase the maximum reduction value for all source control actions combined to 25%. Supporting evidence would be required to claim reductions associated with source controls.

C.10.f - Reporting

- **Issue:** Compliance with NPDES permits is determined by the Water Board. Provision C10.f.v.b requires the Permittees to “submit a report of non-compliance” if it cannot demonstrate the attainment of 70% reduction, which therefore assumes that compliance determinations are made by the Permittee.

Requested Revision: Revise this provision to require that if a Permittee cannot demonstrate a 70% reduction, “submit a report and updated Long-term Trash Load Reduction Plan that describes actions to comply with the mandatory deadlines in a timely manner...”

C.11 - MERCURY CONTROLS

Provisions C.11.a – c in the Tentative Order generally parallel C.12.a – c. Therefore, the below comments on those provisions for C.12 (PCBs Controls) also generally apply to C.11 (Mercury Controls).

C.12 - PCBs CONTROLS

PCBs are a highly persistent legacy pollutant that have been in San Francisco Bay for decades and likely will remain in the Bay for decades to come. Over the past 15 years, Bay Area municipalities in collaboration with the Regional Monitoring Program (RMP) have conducted extensive field studies and gained considerable knowledge about the distribution of PCBs in the Bay Area environment. Due to widespread uses and lack of regulation over many decades (i.e., 1930s – 1970s), this pollutant was widely dispersed in soils and sediments throughout the urban landscape draining to the Bay. Similarly, PCBs are widely dispersed within the Bay's sediments.

Bay Area municipalities have also made a great deal of progress over the past 15 years towards understanding the types of control measures that are most cost-effective in reducing PCBs discharges in stormwater. Although this evaluation of controls is ongoing, no controls identified to-date are particularly cost-effective, apart from the 1979 ban by USEPA on PCBs manufacture, import, export, and distribution in commerce in the United States. The ban represented effective “true source control” but came much too late to have prevented the widespread distribution of PCBs into the urban landscape and the Bay. With further true source control generally not an option, the current challenges in addressing PCBs are not surprising.

Extensive source property identification programs led by Bay Area municipalities have identified a small number of PCB “hot spots” in watersheds across the Bay Area. These hot spots are mostly associated with properties that are currently under cleanup orders from the Regional Water Board, EPA, or DTSC, or are currently permitted by these agencies or could be in the future. These sites are generally outside of the control of local agencies.

It may also be possible to reduce PCB discharges in stormwater over the next few decades by requiring (as the permit does now through provision C.3) stormwater treatment on private properties as they are redeveloped. Retrofitting of landscape-based treatment structures (e.g., “Green Streets”) into the public right-of-way is another approach that provides multiple benefits, but is highly resource and time intensive. Planning for a long-term (i.e., decadal) program to retrofit such Green Infrastructure into the urban landscape has been incorporated into the Tentative Order, but implementation will mostly occur during future permit terms and require several decades.

Additionally, although highly uncertain, there may be opportunities to prevent future contamination as buildings containing PCBs that were constructed during the 1950s - 1970s are demolished. However, the rate at which buildings are demolished and redevelopment occurs, and therefore the timeframe for reduction of PCBs associated with these sources and areas, is generally out of the control of local agencies.

This lack of control over redevelopment and demolition, and the unknowns about the extent and magnitude of additional “hot spots” creates a high level of uncertainty in the level of implementation that cities and counties can commit to during the next five-year permit term. In turn, the uncertainty in implementation creates compliance uncertainty when compliance targets in the permit include assumptions regarding the rate of redevelopment and demolition.

Provision C.12 of the Tentative Order uses a framework that is a hybrid of two approaches, requiring: 1) BMP implementation and 2) pollutant load reduction. The required BMPs are Green Infrastructure and managing PCB-containing materials and wastes during building demolition activities. However, it appears that the primary intent is to require Permittees to demonstrate a total cumulative Bay Area-wide PCBs load reduction of 3 kg/year over the permit term. Our overarching concern is that Provision C.12 continues to fall well short of providing Permittees with a clear and feasible pathway to attaining compliance with this load reduction requirement.

It is also important to note that the level of effort and associated resources required to implement Provision C.12 as set forth in the Tentative Order is highly uncertain. Much of the cost of implementing PCBs control programs during the current permit term was offset by a grant from USEPA that will end in 2016. The availability of grant or other funding for implementing Provision C.12 of the reissued permit is unknown. As a starting point, making all of the below recommended revisions would result in much greater certainty regarding the level of effort and associated resources that would be required to comply with Provisions C.12, and create a much clearer pathway towards complying with the MRP.

C.12.a – Implement Control Measures to Achieve Load Reductions

The Tentative Order appears to require Permittees to reduce PCBs loads to the Bay by 3 kg/year by the end of the permit term. The approach includes developing an accounting system for Executive Officer approval early in the permit term that would form the basis for the load reductions credited to the various PCBs controls.

- **Issue:** There is a lack of a clear and feasible pathway for Permittees to attain compliance with the load reduction requirements. Most factors that would be key to meeting the criteria are uncertain and many are not within Permittee control (e.g., extent of source properties that will be found, building demolition rates, and redevelopment rates), making achievement of compliance uncertain.

Requested Revision: Load reduction performance criteria should not be the point of compliance. Compliance should be based upon implementing PCB control programs designed to achieve a load reduction target (such as a Numeric Action Level or similar mechanism for triggering requirements for additional action and reporting), based on an interim accounting method (see next section). The target would be informed by what the BMP programs could achieve, based on the accounting system, which should be agreed upon upfront and incorporated into the permit.

- **Issue:** The schedule for the following reporting requirements in Provision C.12.a. is unrealistic.
 - Provision C.12.a.iii.(1) - February 1, 2016 report providing "a list of watersheds (or portions therein) where PCB control measures are currently being implemented and those in which control measures will be implemented (C.12.a.ii.(1)) during the term of this permit as well as the monitoring data and other information used to select the watersheds."
 - Provision C.12.a.iii.(2) - 2016 Annual Report providing "the specific control measures (C.12.a.ii.(2)) that are currently being implemented and those that will be implemented in watersheds identified under C.12.a.iii.(1) and an implementation schedule (C.12.a.ii.(3)) for these control measures. This report

shall include: ... [scope, start dates, progress milestones, schedules, roles and responsibilities of Permittees, etc...]....".

Requested Revision: Extend the deadlines for the above reports to the 2017 Annual Report.

C.12.b. Assess Load Reductions from Stormwater

SMCWPPP, other countywide stormwater programs, and Regional Water Board staff recently worked together to develop an interim accounting method. It was intended to provide a basis for stipulated load reduction benefits for implementation of the primary PCB control programs that Permittees anticipate implementing during the MRP 2.0 permit term (this interim accounting method would be revised before the next permit term). We appreciate that Regional Water Board staff included much of the information developed for the interim accounting method in the fact sheet.

- **Issue:** Values for certain key accounting parameters for managing PCB-containing materials and wastes during building demolition activities were left out.

Requested Revision: Include in the interim accounting method values for all parameters to allow for scrutiny during the public permit review process, given the uncertainty in these values. It is especially important to include values for all parameters associated with managing PCB-containing materials and wastes during building demolition activities, including the fraction of PCB mass in a building that enters the MS4 during demolition in the absence of enhanced controls, which is particularly uncertain. Stormwater programs can also provide similar values for mercury to include in the fact sheet as well.

- **Issue:** Requirement to formally submit load reduction assessment methodology early in the permit term for Executive Officer approval creates uncertainty in the load reduction benefit for each PCB control program.

Requested Revision: Omit the requirement to submit load reduction accounting method early in the permit term. Instead, the interim accounting method should be finalized, incorporated into the permit, and then used to calculate PCB load reductions during Permittee annual reporting.

- **Issue:** Water Board staff has acknowledged that load reduction performance criteria are not numeric effluent limits. This should be made clear in the permit. In addition, further clarity is needed regarding the legal definition of the performance criteria and implications with regard to enforcement and potential third party lawsuits.

Requested Revision: PCB load reduction performance criteria should be in the form of Numeric Action Levels or a similar mechanism for triggering requirements for additional action and reporting. In addition, the permit should include contingency language that would allow for achieving compliance if a good-faith demonstration of efforts and actions by Permittees consistent with permit requirements falls short of achieving the load reduction performance criteria.

- **Issue:** Provision C.12.b.iii requires that Permittees submit Permittee-specific proportions of load reduction responsibilities and supporting data to the Water Board by April 1, 2016 – four months after the effective date of the permit. Although Permittees and the RMP have spent considerable time and resources towards identifying PCB hot spots and

watersheds producing greater levels of PCBs to the Bay, data have not been collected at a level to which proportions of load reduction responsibilities could confidently be assigned to Permittees. Furthermore, assigning Permittee-specific responsibilities with high levels of uncertainty upon which compliance could be based is not good public policy and could mistakably place responsibilities upon certain Permittees requiring the spending of public resources towards fictitious goals not based in reality.

Requested Revision: Delete requirement to develop and submit Permittee-specific proportions of load reduction responsibilities.

C.12.c. Plan and Implement Green Infrastructure to Reduce PCBs Loads

Provision C.12.c of the Tentative Order requires Permittees to implement Green Infrastructure projects during the term of the permit to achieve PCBs load reductions of 120 g/year over the final three years of the permit term. Additionally, Permittees are required to prepare a reasonable assurance analysis to demonstrate quantitatively that PCB load reductions of at least 3 kg/yr throughout the Permit area will be achieved by 2040 through implementation of Green Infrastructure plans required by Provision C.3.j.

- **Issue:** It is unnecessary to include performance criteria for PCB load reductions through implementation of GI over the reissued permit term. PCB load reductions will not be the driver for GI implementation during the reissued permit term. Regional Water Board staff has noted that based on extrapolation of data from the current permit term, the proposed metrics should be met via redevelopment in old industrial areas. Thus, the proposed criteria would not influence GI implementation during the reissued permit term and meeting them would instead be dependent upon an activity that is not under Permittee's control. While we expect to learn valuable lessons via opportunistic early implementation of GI retrofit projects through Provision C.3.j.ii, the pollutant load reductions associated with these retrofits implemented over MRP 2.0 is anticipated to be relatively small.

Requested Revision: Delete Provision C.12.c.

- **Issue:** We are unaware of empirical evidence that leads to a prejudgment that PCB load reductions of at least 3 kg/yr throughout the Permit area could be achieved by 2040 through implementation of Green Infrastructure plans. The actual load reductions that Permittees expect to achieve via Green Infrastructure will be determined during the planning and reasonable assurance analysis required by Provision C.12.d., as part of planning for achieving the overall PCBs TMDL allocations.

Requested Revision: Delete Provision C.12.c.

C.12.f. Manage PCB-containing Materials and Wastes during Building Demolition

Provision C.12.f requires development of a program to manage PCBs in building materials and wastes during demolition. Given the large standing stock of PCBs known to be present in certain buildings in the Bay Area, there could potentially be significant benefits to implementing the proposed control program. However, we are not aware that any data exist regarding the amount of PCB-containing materials that are released to the ground during demolition and then mobilized into the MS4 by urban runoff, making it challenging to project with any certainty the actual water

quality benefit of the proposed control program. Cost-effectiveness relative to other PCB controls is also highly uncertain at this time.

- **Issue:** The various potential problems associated with PCBs in building materials (i.e., water quality, human exposure at the site, and disposal) should be addressed on a statewide or federal basis rather than focusing on water quality controls in the Bay Area only. Meeting the Tentative Order's three-year timeframe to develop a program to manage PCBs in building materials and wastes during demolition would likely require administration at the local level. This inappropriate and rushed approach would result in highly inefficient use of scarce public funds and likely be ineffective at comprehensively addressing the problems. It would also likely result in inconsistent programs across the Bay Area.

Recommended Solution: Allow as a minimum the entire permit term for Permittees to work with the State, USEPA, the building industry, and other stakeholders to attempt to develop a comprehensive statewide or federal program analogous to current programs for asbestos and lead paint. Given the multiple environmental and public health issues in play, USEPA should play a large role in development of this program.

We look forward to continuing to work with you and your staff to resolve the issues described in this letter. Please contact me at 415.508.2131 if you have any questions or would like to discuss any of my comments.

Very truly yours,



Randy L. Breault, P.E.
Director of Public Works/City Engineer

Cc: Matt Fabry, San Mateo Countywide Water Pollution Prevention Program