

**California Regional Water Quality Control Board
San Francisco Bay Region
Municipal Regional Stormwater NPDES Permit**

**Response to Comments
on September 10, 2021, Tentative Order**

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The responses to comments to the Tentative Order comprise master responses to comments on overarching issues and select comments that were raised by multiple parties, followed by responses in table form. The master responses to comments are organized by the provision numbers (e.g., C.1, C.3) in the Tentative Order and general comments not associated with a specific provision are at the end. Comments are italicized and summarized and paraphrased for brevity. Please refer to the comment letters for the full comments, context, and tone. Responses in the table refer to the master responses by the Master Response Identifier. To request copies of the comment letters, please contact Derek Beauduy at RB2-MRP@waterboards.ca.gov or (510) 325-8082.

C.1 (Compliance with Discharge Prohibitions and Receiving Water Limitations)

Master Response Identifier: C.1 – 1

Comment Identifier: Baykeeper - 2

Provision No.: C.1

Comment: *Because Draft MRP 3 includes Safe Harbors and adds an additional Safe Harbor for bacteria pollution, it must comply with the requirements of the State Board WQ Orders 2015-0075 and 2020-0038. The Safe Harbor language effectively eliminates the requirements for permittees to be in compliance with the narrative and numeric receiving water standards for pollutants covered by C.9, C.10, C.11, C.12, C.14, C.18, and C.19.c-f. When discussing the State Board precedential orders, the Fact Sheet at A-98 to A-99 only has a brief summary of the additional principles in State Board Order WQ 2020-0038. Neither the Fact Sheet nor the Permit itself contains the minimum scheduling requirements for alternative compliance plans, milestones for achieving compliance, a schedule for compliance, and a final compliance deadline, to be achieved as soon as possible. There are no deadlines for compliance with water quality objectives for any pollutant in Draft MRP 3; Draft MRP 3 is unlawful as proposed, significant modification to the C. provisions is necessary. The Fact Sheet at A-104 states that Draft MRP 3 meets the transparency requirement by including explicit requirements in lieu of the WMP/EWMP approach. A “transparent process” also requires a feedback loop to confirm assumptions and allow for adaptive management. Draft MRP 3 has no methods or means for evaluating compliance and lacks monitoring that would allow such analysis.*

Response: Provision C.1 does not relieve permittees from meeting receiving water limitations—they must ultimately achieve compliance and the Permit puts them on a directed path to compliance, as allowed by State Water Board WQ Orders 2015-0075, as amended by 2021-0052-EXEC, and 2020-0038. In the former order, the State Water Board was sympathetic to municipal storm water dischargers being in noncompliance with receiving water limitations for many years while undertaking significant efforts to

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achieve compliance. Accordingly, it held that it is appropriate for municipal storm water permits to incorporate a well-defined, transparent, and finite alternative path to permit compliance that allows MS4 dischargers that are willing to pursue significant undertakings beyond the iterative process (of reporting a violation and proposing BMP improvements to better meet water quality standards) to be deemed in compliance with the receiving water limitations. The alternative path has to be ambitious, rigorous, and transparent. Importantly and pertinent here, the State Water Board held that for water body-pollutant combinations with TMDLs, full compliance with the requirements of the TMDL constitutes compliance with the receiving water limitations for that water body-pollutant combination.

Here, the requirements in C.9 to C.12, C.14, C.18, and C.19.c-f provide an alternate path to compliance with applicable receiving water limitations (for pesticides, trash, mercury, PCBs, bacteria, and sediment) consistent with the State Water Board orders. As required by Order WQ 2015-0075, as amended by 2021-0052-EXEC, the requirements are based on a thorough analyses of water quality problems posed by the pollutants in question and the solutions to address them, specifically through TMDLs and the Trash Amendments. The requirements also reflect the latest knowledge and expertise gained by the Water Board over many years trying to resolve the impairments caused by the subject pollutants. The requirements are consistent with the requirements and deadlines of TMDLs and the Trash Amendments, except for Provision C.14.a, which is based on the analyses and requirements from other bacteria TMDLs. As stated above, the State Water Board has held that full compliance with the requirements of a TMDL constitutes compliance with receiving water limitations.

The requirements in the subject provisions include ambitious and rigorous requirements, which are fundamental under the State Board Orders to be deemed in compliance with receiving water limitations. For example, for mercury and PCBs, Permittees are required to undertake numerous difficult but doable actions like finding and controlling sources of these pollutants, which are widely dispersed throughout the region, and implementing controls in old industrial areas totaling thousands of acres, among many other ambitious and rigorous requirements. Indeed, the Water Board is at the forefront of requiring ambitious PCB requirements like controlling runoff of the pollutant from building demolition materials and bridge roadway expansion joints. Similarly, the Water Board has been at the forefront of requiring difficult but doable trash controls. The trash requirements are ambitious and rigorous because they require 100% trash load reduction by 2025. The Tentative Order's bacteria requirements are likewise ambitious and rigorous. For an explanation, please see Master Response Identifier C.14.a-1 below, which responds the comment Baykeeper – 4.

The comment refers to State Water Board Order WQ 2020-0038's "minimum scheduling requirements," but the State Water Board was referring to the Los Angeles Water Board's minimum scheduling requirements. In any case, we recognize that the State Water Board Orders require finite alternative paths to compliance. For pollutants with TMDLs, the final compliance deadlines are the same as the TMDL deadlines. The only provision without a TMDL other than trash (which is based on the Trash Amendments

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and whose final compliance deadline is June 30, 2025) is Provision C.14.a pertaining to the cities of Sunnyvale's and Mountain View's bacteria discharges in certain South Bay waters. In response to comments, this provision has been revised to be clearer that the covered permittees are expected to achieve compliance with the receiving water limitations related to bacteria by the end of the Permit term on June 30, 2027. This expectation is based on the rigor, completeness, and thoroughness of what is required to find and control bacteria sources. If despite diligent efforts that does not occur, the permittees are required to submit a comprehensive assessment to achieve compliance as soon as possible (i.e., phase two actions). As explained in the revised Fact Sheet for Provision C.14.a, due to impossibilities or limitations of modeling or conducting quantitative analysis for bacteria MS4 discharges and known and unknown uncertainties associated with identifying and controlling possible sources, it is impossible to assert with certainty at the onset of the Permit term that source identification and control actions will result in compliance by the end of the Permit term. For this reason, the expectation to comply with receiving water limitations by June 30, 2027, is not expressed in the Permit as an enforceable final deadline. The State Water Board Orders allow deviation from the principles therein where a regional water board shows a principle is inappropriate for region- or permit-specific reasons. The unique characteristics, challenges, uncertainties, and unknowns related to bacteria here, as explained in the revised Fact Sheet, support not using the June 30, 2027, as an enforceable final deadline, but allowing for the possibility of phase two actions. This phased approach is also consistent with the requirements of numerous bacteria TMDLs in the region on which Provision C.14.a is based.

The provisions include milestones to assure progress in meeting the final compliance deadlines and reporting requirements. For example, to meet the mercury and PCBs deadlines, the Permit requires actions that are expected to reduce mercury and PCB loads by approximately 10 kg/yr and 1.47 kg/yr, respectively. However, although those estimates are well founded, their approximate nature does not warrant using them as enforceable milestones. Rather, Permittees must substantiate loads reduced through an accounting system and there will be a combination of monitoring and modeling to determine progress in meeting the load reductions (as well as to update prior assumptions and analyses and inform adaptive implementation). The trash provision includes a milestone of 90% trash reduction by 2023. The cities of Sunnyvale and Mountain View are expected to comply with receiving water limitations related to bacteria by implementing specified source identification and control actions by the end of the Permit term. However, as stated above, due to impossibilities or limitations of modeling or conducting quantitative analysis for bacteria MS4 discharges, at the onset of the Permit term, it is impossible to assert with certainty that specific water quality improvement milestones can be achieved during the Permit term. The Permit does, however, call for a mid-Permit term report to adapt efforts based on initial successes and challenges, and an end of Permit term report to either document compliance with bacteria receiving water limitations or if necessary, a plan and schedule of new or enhanced controls to attain compliance as soon as possible in the next permit term.

Order WQ 2020-0038 includes additional requirements related to data usage for alternative compliance paths and the use of limiting pollutants, which are not directly

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applicable to the Permit since the Water Board is neither relying on permittee-conceived watershed management plans for compliance with receiving water limitations nor using limiting pollutants. The order reiterates the requirement in WQ Order 2015-0075, as amended, for clear and concrete milestones and deadlines, with which this Order complies, consistent with the applicable TMDLs. WQ Order 2021-0038 also articulated the need for permittees to demonstrate actual compliance with milestones and deadlines not generated through reliance on the relevant permit's required analytical process. Here, water quality monitoring is required in the Permit to determine if milestones and deadlines are or will be met. In other words, there will be accountability based on what is being achieved in waters and not merely through reliance on the Permit's analytical methods.

Similarly, the Permit is consistent with the transparency requirements of the State Water Board Orders. Contrary to the comment, the Permit does include feedback loops in the form of monitoring to inform progress and adaptive implementation, thus assuring transparency. See Master Response Identifier C.8-1 below, which responds to comment Baykeeper – 11.

C.3 (New Development and Redevelopment)

Master Response Identifier: C.3-1

Comment Identifier: Parts 1) and 3) of SCVURPPP-3a,28, SMCWPPP-66, Santa Clara-3, ACCWP-5,8,9,10, San Jose-9, SMCWPPP-7, Orinda-2, Oakland-2, San Mateo County-4, Cupertino-1

Provision No.: C.3.b.ii.(2)-(4) – Other Development Projects, Other Redevelopment Projects, and New or Widening Road Projects. By way of background, the threshold for these Regulated Project categories has been lowered to 5,000 from 10,000 square feet of impervious surface as compared to the previous permit.

Comment: *Changes to C.3.b.ii.(2)-(4) impose new costs to Permittees (increased burden to conduct plan/design review, inspections, tracking) without commensurate/significant water quality benefits.*

Response: As the Fact Sheet explains, the Permittees submitted a report in 2015 that the benefit provided by additionally capturing Regulated Projects in the 5,000-10,000 square foot range would likely provide similar benefit (with respect to acres of impervious surface treated) and similar cost (with respect to the burden on Permittees to review project applications and conduct inspections as well as other administrative burdens) as compared to Regulated Projects already captured, such as the 10,000-15,000 square foot range and the 15,000-20,000 square foot range.

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Consistent with many other permits, such as those referenced in the Fact Sheet, these projects constitute a significant investment and replacement of impervious surface, and therefore warrant the inclusion of clean water controls.

Comment: *Municipalities will have a hard time finding acceptable in-lieu alternatives for small projects not suitable for green infrastructure, e.g., those on steep slopes and those without the drainage infrastructure to allow GSI retrofits.*

Response: For smaller/constrained sites at which it is challenging to implement LID, Permittees may use C.3.e.ii Alternative Compliance; one of the major purposes of the Permittees' Green Infrastructure Plans was to identify such alternative sites. Permittees also have the option of having such Regulated Projects contribute to a joint stormwater treatment facility.

Master Response Identifier: C.3-2

Comment Identifier: Part 1) of ACCWP-a1i,a1ii,5,7,12, Oakland-2,7, San Mateo County-4,14, Hillsborough-3, Oakland & San Jose-2a, SMCWPPP-8, Woodside-8,11, CCCWP-18,20, San Pablo-2, CCTA-1,3, Walnut Creek-6, Santa Clara-3, Dublin-4, Concord-1,2,3,6,7, Cupertino-2, Orinda-1, SCVURPPP-3b,29

Provision No.: C.3.b.ii.(5) – Road Reconstruction Projects.

Comment: *It is technically challenging to fit stormwater treatment into Road Reconstruction Projects, for example because of limited right of way and utility conflicts. It is cheaper and easier to include stormwater treatment on parcels than in the public right of way because there are fewer constraints.*

Response: Comment noted. Recognizing that it can be technically challenging to fit stormwater treatment into certain Road Reconstruction Projects, C.3.b.ii.(5)(c) provides flexibility for such constrained sites by allowing the use of the conditionally-approved alternative sizing criteria.

For Road Reconstruction Projects (or any other Regulated Project), Permittees are not required to provide treatment measures onsite. Permittees may install treatment measures on adjacent parcels. And C.3.e.i provides additional flexibility by allowing the offsite treatment measures to treat a separate drainage area, in lieu of treating the drainage area disturbed by the Road Reconstruction Project.

Master Response Identifier: C.3-3

Comment Identifier: Part 4) of ACCWP-a1i,a1ii,5,7,12, Oakland-2,7, San Mateo County-4,14, Hillsborough-3, Oakland & San Jose-2a, SMCWPPP-8, Woodside-8,11, CCCWP-18,20, San Pablo-2, CCTA-1,3, Walnut Creek-6, Santa Clara-3, Dublin-4, Concord-1,2,3,6,7, Cupertino-2, Orinda-1, SCVURPPP-3b,29

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Provision No.: C.3.b.ii.(5) – Road Reconstruction Projects

Comment: *C.3.b.ii.(5) will regulate routine pavement maintenance.*

Response: We disagree. C.3.b.ii.(5) specifically regulates significant reconstruction, not routine maintenance. C.3.b.ii.(1)(b) clarifies that distinction. As explained in the Fact Sheet, the Road Reconstruction Regulated Projects category – in addition to the Numeric Implementation retrofit requirements in C.3.j.ii.(2) – is intended to address the significant pollutant loading and hydrologic impact to receiving waters from Permittees' existing public roads and to clarify the amount of road reconstruction that is redevelopment justifying an investment of resources to retrofit the road with clean water controls.

Master Response Identifier: C.3-4

Comment Identifier: Part 2) of ACCWP-a1i,a1ii,5,7,12, Oakland-2,7, San Mateo County-4,14, Hillsborough-3, Oakland & San Jose-2a, SMCWPPP-8, Woodside-8,11, CCCWP-18,20, San Pablo-2, CCTA-1,3, Walnut Creek-6, Santa Clara-3, Dublin-4, Concord-1,2,3,6,7, Cupertino-2, Orinda-1, SCVURPPP-3b,29; Part 1) of CCCWP-18

Provision No.: C.3.b.ii.(5) – Road Reconstruction Projects

Comment: *C.3.b.ii.(5) will impede strategic implementation of green infrastructure.*

The proposed change to apply Regulated Project requirements to work in existing rights of way would upend or nullify the municipalities' Green Infrastructure planning and prevent some green infrastructure projects, currently in the process of design or negotiation, from going forward.

Response: We disagree. C.3.b.ii.(5) will facilitate Permittees' strategic implementation of green infrastructure, as they will gain experience, and become more efficient at, implementing green infrastructure.

As well, in MRP 2, the stated purpose of the Green Infrastructure Plans was to incorporate LID into storm drain infrastructure on public and private lands, including streets, roads, storm drains, and other storm drain infrastructure elements. With the Green Infrastructure Plans completed, the Permittees have a head start on implementing exactly the kinds of projects that will be regulated as Road Reconstruction Projects in MRP 3.

Comment: *The proposed change to apply Regulated Project requirements to work in existing rights of way would upend or nullify the municipalities' Green Infrastructure planning and prevent some green infrastructure projects, currently in the process of design or negotiation, from going forward.*

Response: We disagree. The inclusion of Road Reconstruction Projects is consistent with the planning work completed in the Green Infrastructure Plans. The Green

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Infrastructure Plans considered Permittees' capital improvement project lists as part of identifying and prioritizing green street retrofit projects, among other project types, and thus it is likely that at least some of the Permittees' road reconstruction projects under C.3.b.ii.(5) were identified in the Permittees' Green Infrastructure Plans. In addition, Permittees may use the prioritized list of projects identified in their Green Infrastructure Plans as a source of alternative compliance projects in lieu of completing clean water controls at a road reconstruction project that otherwise was not identified in their Green Infrastructure Plan.

Please also see the response to Cupertino-1, and to the following combined comment, in the Response to Comments table:

San Mateo County-4
ACCWP-a2i
CCCWP-21

Master Response Identifier: C.3-5

Comment Identifier: Part 5) of ACCWP-a1i,a1ii,5,7,12, Oakland-2,7, San Mateo County-4,14, Hillsborough-3, Oakland & San Jose-2a, SMCWPPP-8, Woodside-8,11, CCCWP-18,20, San Pablo-2, CCTA-1,3, Walnut Creek-6, Santa Clara-3, Dublin-4, Concord-1,2,3,6,7, Cupertino-2, Orinda-1, SCVURPPP-3b,29

Provision No.: C.3.b.ii.(5) – Road Reconstruction Projects

Comment: *Allow the Permittees to implement road reconstruction projects at their own self-determined pace via their Green Infrastructure Plans, and C.3.j.iii, No Missed Opportunities. It is unclear why municipalities were required to complete a GI Plan in the last MRP only to mandate GI in the next MRP.*

Response: We disagree, and this issue is discussed in the Fact Sheet. The Permittees' limited commitments for green infrastructure implementation in their GI Plans are insufficient to address the urban runoff water quality impacts associated with existing impervious surfaces. With few exceptions, the GI Plans do not commit to accelerate the existing rate of green infrastructure implementation, or to retrofit existing impervious surfaces (particularly, in the public right of way), with clean water controls to address urban runoff discharges, beyond what the MRP 2 already required for Regulated Projects using an LID approach. Consequently, the GI Plans are limited in the extent to which they would reduce the adverse water quality impacts of urban runoff on receiving waters over time.

These outcomes represent a missed opportunity, in that MRP 2's green infrastructure planning requirement was included as an alternative to expanding the Regulated Project definitions to include all new and redevelopment projects that create or replace 5,000 square feet of impervious surface, and road projects that just replace existing

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impervious surface area. That is, in MRP 2, green infrastructure planning was included in part to provide municipalities the opportunity to evaluate and account for smaller area regulated projects and road replacement projects as part of their GI Plans, and develop commitments to implementation that would be more efficient and effective for them than a Permit requirement to include all such projects.

Because the GI Plans did not include those commitments, the Tentative Order includes a modest green infrastructure implementation requirement, as well as a new Regulated Project category, Road Reconstruction Projects.

Master Response Identifier: C.3-6

Comment Identifier: Part 6) of ACCWP-a1i,a1ii,5,7,12, Oakland-2,7, San Mateo County-4,14, Hillsborough-3, Oakland & San Jose-2a, SMCWPPP-8, Woodside-8,11, CCCWP-18,20, San Pablo-2, CCTA-1,3, Walnut Creek-6, Santa Clara-3, Dublin-4, Concord-1,2,3,6,7, Cupertino-2, Orinda-1, SCVURPPP-3b,29

Provision No.: C.3.b.ii.(5) – Road Reconstruction Projects

Comment: *Permittees are already challenged with maintaining their roadways. Adding additional immediate and long-term costs (capital construction, and O&M) will worsen roadway conditions because improvements will be further delayed, and will negatively impact public safety. Permittees will be burdened with additional treatment systems that need to be inspected, maintained, and tracked, which pose additional costs. Proposition 218 severely restricts cities' ability to raise ongoing stormwater funding that would be needed to cover the additional costs. Existing funding sources for these roadway projects, such as grants, do not include the cost of stormwater treatment and maintenance, and can have restrictions including not combining with other roadway grants that focus on safety.*

Response: We believe that this comment exaggerates the impact that this will have on Permittees' CIP Programs. Funding for C.3 implementation is available from many sources, including grants, collection of in lieu fees, adoption of new ordinances leveraging private redevelopment (e.g., City of San Mateo), and adoption of new - or revision of existing - stormwater utility fees. Please see the discussion in the Economic Analysis, including regarding LA's Measure W and SB 1 gas tax funding, which includes green infrastructure as a fundable cost.

Regarding stormwater utility fees, the Fact Sheet explains that Proposition 218 is not an impediment to the Permittees' fee authority.¹ The Constitution has an exception to the voter approval requirements of Proposition 218, "for fees or charges for sewer, water, and refuse collection services" (Cal. Const. Article XIII D, section 6, subd. (c)). The Fact

¹ Such authority is also undiminished by Proposition 26, which specifically excludes assessments and property-related fees imposed in accordance with Proposition 218 from the definition of taxes (Cal. Const., art. XIII C, § 1, subd. (e)(7)).

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Sheet goes on to discuss two recently-enacted pieces of legislation that confirm fee authority without the need for voter approval, including a discussion of SB 231. It continues regarding Permittees' authority to levy stormwater utility fees.

The City of Oakland's GI Plan includes a useful summary letter (App. F, Oakland 100RC Stormwater Program Financing Memo) that describes a range of available funding opportunities, as does BASMAA's Roadmap of Funding Solutions for Sustainable Streets.²

Master Response Identifier: C.3-7

Comment Identifier: Part 1) of CCCWP-20, ACCWP-7

Provision No.: C.3.b.ii.(5) – Road Reconstruction Projects

Comment: *No other NPDES MS4 permits in California have analogous requirements for public road projects. Most CA stormwater permits provide a very flexible roadway treatment requirement that is essentially equivalent to a “no missed opportunity” requirement.*

Response: The Fact Sheet lists many examples of municipal MS4 NPDES permits which include analogous treatment requirements for Road Reconstruction Projects, including the City of Portland's NPDES MS4 Permit (effective January 31, 2011) and U.S. EPA's NPDES MS4 Permit for Washington, D.C. (effective June 22, 2018).

Master Response Identifier: C.3-8

Comment Identifier: CCTA-4

Provision No.: C.3.b.ii.(5) – Road Reconstruction Projects

Comment: *Providing stormwater treatment for all urban impervious surfaces is a long-term goal. Therefore, additional exemptions should be included in C.3.b.ii.(5) for said types of projects.*

Response: We agree that retrofit of existing urban impervious surfaces to address their contributions of urban runoff pollutants is a long-term goal. C.3.b. and C.3.j are an incremental, evolutionary step towards reducing those impacts. C.3.j.ii.(4) creates a workgroup to evaluate issues including the necessary rate of future progress, which may result in changes to C.3.b and C.3.j in future permit terms.

² https://basmaa.org/wp-content/uploads/2021/01/roadmap_funding_solutions_sustainable_streets_final.pdf

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Master Response Identifier: C.3-9

Comment Identifier: Part 6) of ACCWP-a1i, a2ii/8/13, CCCWP-23, SCVURPPP-30, SMCWPPP-7,68, Hillsborough-2, Oakland-8, Cupertino-3, San Jose-16, Woodside-7,11

Provision No.: C.3.b.ii.(6) – Large Detached Single-Family Home Projects. By way of background, in certain Permittees' jurisdictions, a significant portion of development and redevelopment projects consists of large detached single-family home projects because a significant portion of those Permittees' land use is large lot single-family residential. Therefore, this new category has been added to control the pollutant discharges associated with this category of development and redevelopment.

Comment: *Little to no environmental benefit associated with capturing Large Detached Single-Family Home Projects, while annual municipal administration costs are asserted to be significant. Such projects should therefore be allowed to implement onsite design measures such as diverting runoff to onsite vegetated areas in lieu of complying with C.3.c-d.*

Response: The following is provided in the Fact Sheet:

I. The BASMAA study referenced repeatedly in Permittee comments demonstrates that the benefit provided by capturing Regulated Projects in the 5,000-10,000 square foot range would likely provide similar benefit (with respect to acres of impervious surface treated) and cost (with respect to the burden on Permittees to review project applications and conduct inspections as well as other administrative burdens) as compared to Regulated Projects in the preceding ranges, such as 10,000-15,000 square feet and 15,000-20,000 square feet.

II. Large Detached Single-Family Home Projects can cause the same urban runoff pollutant and hydromodification impacts that projects of similar sizes in any of the other Regulated Projects categories can produce, because of the created/replaced impervious surface, because those surfaces are similar in nature to other pollutant-generating surfaces in the urban environment, and because aerially deposited urban pollutants are deposited and discharged from those projects to the MS4. Additionally, when flows from these projects flow onland (e.g., along public streets, ditches and gutters) prior to entering the MS4 system and discharging to receiving waters, they can mobilize stormwater pollutants from those surfaces, eventually transporting them to receiving waters.

III. Permittees are able to recoup all or a significant portion of the cost of accommodating this new category of Regulated Projects, for example, by charging project application review and inspection fees.

IV. There are many other MS4 Permits that consider it MEP to include analogous treatment requirements for Large Detached Single-Family Home Projects, because of the water quality and hydrologic benefits of capturing those projects. Examples are given in the Fact Sheet.

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V. U.S. EPA Region 9 supports the expansion of these Regulated Project categories, as it is well understood that untreated stormwater contributes to the degradation of the San Francisco Bay and local creeks and streams, and dense urbanization, infrastructure and impervious surfaces ring San Francisco Bay and contribute to an increase of contaminants that degrade receiving waters.

Noting the above, we believe it would be appropriate to delay the start date of implementation of C.3.b.ii.(6) (and of C.3.b.ii.(5), and of the changes to the thresholds of the existing Regulated Project categories, C.3.b.ii.(2)-(4)) by one year, to give Permittees extra time to adjust their development review processes – see the response to San Jose-11.

Master Response Identifier: C.3-10

Comment Identifier: Part 2) of ACCWP-a1i, a2ii/8/13, CCCWP-23, SCVURPPP-30, SMCWPPP-7,68, Hillsborough-2, Oakland-8, Cupertino-3, San Jose-16, Woodside-7,11

Provision No.: C.3.b.ii.(6) – Large Detached Single-Family Home Projects

Comment: *Including Large Detached Single-Family Home Projects as Regulated Projects if they create and/or replace at least 10,000 square feet of impervious surface, conflicts with state and local governments' concerted efforts to improve housing affordability.*

Response: It is unlikely that Large Detached Single-Family Home Projects, as defined in C.3.b.ii.(6) are significantly contributing to housing affordability because they are almost certainly unaffordable to Extremely Low, Very Low, Low, and even Moderate income households. In one commenter's jurisdiction, the median home price over the past year was \$5.1 million (see <https://www.redfin.com/city/8642/CA/Hillsborough/housing-market>). While some homes available for that price may have triggered this requirement if it had been in place, others would not have had sufficient impervious surface to trigger it. In the City of Oakland, a relatively more affordable city, the median single-family housing price in February 2022 was about \$1 million, and even prices well above that median price were for smaller homes and lots that would not have triggered the requirement (<https://www.redfin.com/city/13654/CA/Oakland/housing-market>). For example, 1 Dulwich Road, Oakland, sold for \$1.725 million, but had a lot size of only 3,569 sq. ft. (<https://www.redfin.com/CA/Oakland/1-Dulwich-Rd-94618/home/609434>), and 6239 Elderberry, Oakland, sold for \$1.85 million, but had a lot size of only 7,498 sq. ft. (<https://www.redfin.com/CA/Oakland/6239-Elderberry-Dr-94611/home/610738>). Even if fully paved, those lots could not have met the 10,000 sq. ft. threshold for impervious surface.

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Master Response Identifier: C.3-11

Comment Identifier: Part 3) of ACCWP-a1i, a2ii/8/13, CCCWP-23, SCVURPPP-30, SMCWPPP-7,68, Hillsborough-2, Oakland-8, Cupertino-3, San Jose-16, Woodside-7,11:

Provision No.: C.3.b.ii.(6) – Large Detached Single-Family Home Projects

Comment: *LID controls required for Large Detached Single-Family Home Projects pursuant to C.3.b.ii.(6) are not "readily inspected," or "inaccessible to municipal inspectors," and enforcement is also difficult.*

Response: Permittees are required to establish the legal authority (e.g., via ordinance) to inspect all Regulated Projects, including residential development and redevelopment projects, and to conduct such an inspection at least once every 5 years (C.3.h.ii(6)). Other MS4 Permittees have established this authority. For example, Eugene, Oregon's 2014 Stormwater Manual, Section 4.2.4, Enforcement, states: "...the City has the right and responsibility to inspect private facilities to assure they are being operated and maintained in accordance with the approved design, the O & M Plan, the Eugene Code and this Manual." Manual Section 1.5 states "...Generally, all development and redevelopment land use applications and building permits that propose 1,000 sq. ft. or more of new or replaced impervious surface must treat the stormwater runoff from that area onsite before discharging to the public stormwater system."

Master Response Identifier: C.3-12

Comment Identifier: San Mateo County-12

Provision No.: C.3.b.ii.(6) – Large Detached Single-Family Home Projects

Comment: *Regulation of residential subdivisions as Regulated Projects at 5,000 square feet will include projects that are "now possible under SB 9," and is financially and administratively burdensome. For a two-lot subdivision, the combined impervious surface for both lots may be far less than the 10,000 sq. ft. threshold of impervious surface for single-family homes, yet still be subject to the same requirements.*

Inclusion of single-family subdivisions now possible under SB 9 is in direct conflict with the spirit of the legislation, which is to provide denser, more affordable housing throughout the State. The lowered threshold for subdivisions adds additional development cost at a time when housing is scarce, places a significant maintenance burden on the future homeowners of these parcels, and results in a significant ongoing inspection burden on the County to inspect the small separate systems that would result from this change.

Exempt detached single-family home subdivisions that are just 2 parcels.

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Response: Two-lot residential subdivisions are Regulated Projects under MRP 2 when they meet the applicable impervious surface threshold (i.e., 10,000 sq. ft.), and the Fact Sheet includes an analysis supporting the reduction of the threshold to 5,000 sq. ft. in MRP 3. It is not evident from the comment why the reduction of that threshold to 5,000 sq. ft. from 10,000 sq. ft. poses particular impediments for 2-parcel subdivisions, as compared to subdivision projects consisting of 3 or more parcels. We would expect Permittees to continue to apply their existing plan review, inspection, and alternative compliance processes for such projects.

However, recognizing that SB 9 also allows for the construction of an accessory dwelling unit (ADU) on a lot with an existing single-family home, without subdividing the lot, we have modified C.3.b.ii.(6) to clarify that such an action would fall under the large single-family home threshold of 10,000 sq. ft. of impervious surface.

The comment states that the Tentative Order's regulation of residential subdivisions consisting of 2 parcels at a 5,000 square foot impervious surface threshold would impede goals to provide denser and more affordable housing because it would increase development, operation, maintenance, and inspection costs.

Regarding increased development costs, detached single-family subdivisions of 2 parcels are only considered Regulated Projects if they create and/or replace 5,000 square feet of impervious surface. Such projects constitute a significant investment and replacement of impervious surface, and therefore warrant the inclusion of clean water controls.

If treatment systems for such projects are burdensome to operate, maintain, and inspect, Permittees have the option of implementing C.3.e.i Alternative Compliance, for example, by including stormwater treatment in the public right of way that captures runoff from several tributary small subdivisions and other tributary projects, or otherwise constructing district-scale (i.e., up to tens of acres of tributary area) or regional-scale (i.e., hundreds of acres or more of tributary area) treatment systems, which may be more efficient to operate, maintain, and inspect.

There is significant precedent for the regulation of these types of projects. The Fact Sheet includes numerous examples of other municipal stormwater NPDES permits that require analogous treatment measures for 2-parcel subdivision projects that create and or replace greater than or equal to 5,000 square feet of impervious surface, such as: the City of Portland's NPDES MS4 Permit (effective January 31, 2011), and U.S. EPA's NPDES MS4 Permit for Washington, D.C. (effective June 22, 2018). The Fact Sheet provides several additional justifications, including noting the construction of appropriately sized treatment controls for dense projects.

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Master Response Identifier: C.3-13

Comment Identifier: San Jose-11

Provision No.: C.3.b.iii – Implementation Level.

Comment: *The changes to C.3 may impact certain projects that are currently in the planning phase. Delay the implementation of new/changed C.3 requirements by several years into the MRP 3 term.*

Response: We agree that to facilitate implementation of updated expectations for the Regulated Project categories (to allow Permittees to arrange all relevant planning authorities and municipal processes, train their staff, etc.), as well as impervious surface threshold reductions to 5,000 square feet from 10,000 square feet, it is appropriate to delay the start date for implementation of the new Regulated Project categories (C.3.b.ii.(5)-(6)), and of changes to the thresholds for the existing Regulated Project categories (C.3.b.ii.(2)-(4)), by one year, until July 1, 2023, as follows:

Provision C.3.b.iii Implementation Level has been revised, to direct Permittees to implement Provisions C.3.b.i, and C.3.b.ii.(1)-(4), immediately. It also directs Permittees to implement Provisions C.3.b.ii.(5)-(6) beginning July 1, 2023. Prior to July 1, 2023, projects under Provision C.3.b.ii.(5) shall instead comply with Provision C.3.j.iii (No Missed Opportunities). Prior to July 1, 2023, projects under Provision C.3.b.ii.(6) shall comply with Provision C.3.i.

Beginning July 1, 2023, all references to 10,000 square feet in Provisions C.3.b.ii.(2)-(4) change to 5,000 square feet. The lower 5,000 square foot impervious surface threshold does not apply to private Regulated Projects which have received final discretionary approval (by June 30, 2023) and to public Regulated Projects which have been fully funded and have had construction scheduled (both by June 30, 2023)

Master Response Identifier: C.3-14

Comment Identifier: BIA Bay Area-1, Contech-2,3, KS&E-1, Oldcastle-1, ACCWP-a1i,a2i

Provision No.: C.3.c.i.(2)(c)(ii)(a) – Alternative Treatment Systems.

Comment: *Suggests additions to C.3.c.i.(2)(ii) to allow the use of alternative treatment systems, so long as they've received certain certifications (i.e., from Washington State Department of Ecology TAPE program) and comply with the C.3.d criteria. The current prescriptive design standard limits innovation. Such treatment systems are allowed in other NPDES MS4 Permits in California. If allowed, they would reduce developers' reliance on Special Projects, since they have a smaller footprint than conventional bioretention. They'd also significantly reduce maintenance costs. Their media is always the same, compared to conventional bioretention with a sand/compost mix which can*

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vary and provide significantly less treatment than historical testing would indicate. A petition signed by over 140 engineers, contractors, developers, and municipal staff supports the commenters' request to allow the use of these systems.

Other bioretention systems that do not conform to the sizing and soil media specifications contained in this permit section are prohibited, regardless of their comparative effectiveness in reducing the discharge of pollutants and their technical and financial feasibility.

Prohibiting the use of innovative bioretention systems that are feasible, accepted by similar stormwater programs as appropriate, and have been proven to be equally or more effective in reducing effluent pollutant loads as compared to conventional bioretention, violates the requirement in CWA Section 402(p)(3)(B)(iii) "reduce the discharge of pollutants to the maximum extent practicable." Therefore, the only way that this provision can stand as written is if the conventional bioretention system sizing and media composition described in C.3.c is definitively the most effective bioretention specification available for pollutants of concern in the SF Bay region, which it is not.

Response: The Permit's bioretention performance criteria and related requirements were developed in coordination with the Permittees, U.S. EPA, and others after significant consideration of existing standards and knowledge.

While the Water Board does not currently have resources available to implement a new technology verification program equivalent or substantially similar to Washington State's, designs implemented under the Permit have been, and will continue to be, informed by lessons learned from programs like Washington State's, as well as ongoing research in the Bay Area, California, and elsewhere. We recognize that Washington State's TAPE program, as described at <https://fortress.wa.gov/ecy/publications/documents/1110010.pdf>, and which includes dissolved copper and dissolved zinc in addition to other pollutants, is relatively more robust than assessment programs limited to a TSS standard. At the same time, by itself, it does not consider issues unique to the Bay Area, including performance related to mercury and PCBs, as well as performance over time and hydrologic performance that affects the discharge of pollutants.

Low impact development runoff treatment practices, including bioretention, remove urban runoff pollutants through a variety of mechanisms, including mechanisms that prevent runoff from discharging directly downstream to a surface water, such as: infiltration of flows into the ground; evapotranspiration; and capture and reuse. These mechanisms can play a significant role in reducing pollutant loads in runoff (see, for example, bioretention performance studies at the International Stormwater BMP Database, www.bmpdatabase.org). Studies in the Bay Area and elsewhere have found that bioretention designs, even in clay soils expected to have fairly low infiltration rates, could infiltrate a significant portion of runoff (e.g., Contra Costa County Clean Water Program, September 15, 2013. IMP Monitoring Report). Ongoing improvements to

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bioretention designs, such as inverted elbows for underdrains, which maximize the time available for runoff to evapotranspire and infiltrate into the ground, are likely to continue to improve volume reduction performance.

In addition, effective implementation of LID practices, including bioretention, involves successfully implementing a series of practices: developing appropriate control designs, including soil specifications, ensuring those designs are built and specifications can be achieved in the field, and that there is sufficient information for them to be appropriately inspected, operated, and maintained. Examples of challenges include ensuring suppliers can consistently deliver appropriate media to construction sites; the need to better understand control hydrologic performance to ensure that alternate approaches are reasonably comparable and reasonably as effective, and ensuring that municipal inspectors have the information needed to ensure controls' effective function— information that may be limited, for example, if a proprietary media mix is used. Those are examples of reasons that the Permit specifies aspects of bioretention cell design and media performance. It is not clear that those issues have been worked out in the Bay Area for novel bioretention systems or media advocated by the commenters. In addition, as stated above, reliance on testing programs from other states for those systems and media has some limitations, since, for example, they do not consider the hydrologic performance that the Permittees must meet under the Permit, which includes unique drivers like reducing PCBs and mercury.

We recognize that the MEP standard evolves in light of programmatic improvements, new source control initiatives, and technological advances that serve to improve the overall effectiveness of stormwater management programs in reducing the discharge of pollutants. At this time, it is premature to allow the novel bioretention systems and media desired by the commenters until their effectiveness and ability to be successfully implemented in a measurable way that is comparable to the Permit's existing standard are better understood.

It is worthwhile to explore whether certain alternative treatment systems may be capable of providing some of the same water quality and hydrologic benefits that are provided by LID, and therefore we have added C.3.c.i.(2)(ii)(a), which prompts the formation of a workgroup to discuss that. The outcomes of the workgroup may result in proposals for changes in the subsequent Permit term.

A substantial portion of the MRP's success is due to the cooperative relationships that have been built and maintained over time amongst Permittees and between Permittees, the Water Board, and other interested parties. Past Permittee work has been significantly informed by research and third-party work both in the Bay Area and outside the Permittees' jurisdictions. The Permittees meet regularly in meetings open to the public (e.g., under BASMAA's aegis), and we urge the commenter to coordinate with the Permittees' ongoing efforts, such as through this new workgroup.

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We have also edited the Fact Sheet to remove ambiguity about how such alternative treatment systems are credited, prior to an amendment of an existing Permit or an update in a future Permit.

Master Response Identifier: C.3-15

Comment Identifier: Contech-3

Provision No.: C.3.c.i.(2)(c)(ii)

Comment: *Comment summarizes a report attached to the comment letter, regarding the comparative performance and feasibility of innovative and conventional bioretention systems. Conventional bioretention systems are not effective in removing nutrients, mercury or dissolved copper. At current development rates the exclusive use of conventional bioretention will result in the release of approximately 5,500 lbs of elemental phosphorus from Regulated Projects during MRP 3. Conventional bioretention systems are likely to attenuate TSS and PCBs, but net export of both has been observed at some field testing sites in the San Francisco Bay Area. Other media mixes provide better and more consistent removal of TSS, mercury, PCBs, phosphorus, and dissolved copper. These systems require a smaller footprint and are cheaper than conventional bioretention systems.*

"Conventional bioretention is likely to provide significantly more runoff reduction than innovative biofiltration due to its relatively large footprint. However, to provide similar load reductions for most pollutants, as would be provided by non-infiltrating innovative bioretention systems, between 50 and 70% runoff reduction is required to compensate for poorer concentration reduction. This is not likely on most sites in the San Francisco Bay regional where clay soils predominate. Innovative bioretention systems can also be designed to infiltrate stormwater runoff to further improve their pollutant load reduction."

Response: We agree that bioretention system performance depends in part on site-specific characteristics and control design, and there is an opportunity to better understand and consider those issues as part of the workgroup that could be established under C.3.c.i.(2)(ii)(a). The workgroup could also identify additional research needs for control hydrologic performance in lower-permeability (e.g., clayey) soils, as some research has found relatively beneficial (e.g., infiltrative) performance

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even in such soils; thus, additional information is needed to inform an understanding of comparable performance.^{3,4,5,6}

We disagree with the assertion that conventional bioretention systems do not attenuate mercury. Although monitoring has not widely demonstrated that, there's plenty of evidence of effective sediment settling which promotes reduction of mercury loads as normally there's a strong correlation between TSS concentration and mercury concentration in stormwater runoff.^{7,8,9,10,11}

Regarding nutrients, the Bay is understood to be nitrogen-limited, with the largest nitrogen contributions coming from Bay wastewater treatment plants. Thus, the focus on nutrient control is on nitrogen and is on the wastewater treatment plant discharges. While stormwater treatment controls could be redesigned to remove nitrogen, that has the potential to increase mercury methylation and discharge, which could adversely affect the Bay's mercury impairment.

Please also see the response to the following combined comment, in the Response to Comments table:

BIA Bay Area-1
Contech-2,3
KS&E-1
Oldcastle-1
ACCWP-a1i,a2i

³ Winston, Ryan, 2004. Ph.D. dissertation, Resilience of Green Infrastructure Under Extreme Conditions. Univ. of North Carolina.

<https://repository.lib.ncsu.edu/bitstream/handle/1840.16/10890/etd.pdf?sequence=2>

⁴ Traver, 2004. Infiltration strategies for LID. World Wat. and Env. Resources Congress, EWRI of ASCE. [https://doi.org/10.1061/40737\(2004\)83](https://doi.org/10.1061/40737(2004)83)

⁵ Traver and Ebrahimian, July 19, 2017. Dynamic design of green stormwater infrastructure. Frontiers of Env. Sci. & Engineering 11(15). <https://link.springer.com/article/10.1007/s11783-017-0973-z>

⁶ Winston et al., May 2016. Quantifying volume reduction and peak flow mitigation for three bioretention cells in clay soils in northeast Ohio. Science of the Total Environment 553(15).

<https://doi.org/10.1016/j.scitotenv.2016.02.081>.

⁷ Gilbreath, McKee, et al., 2019. Multi-year water quality performance and mass accumulation of PCBs, mercury, methylmercury, copper and microplastics in a bioretention rain garden. Journal of Sustainable Water in the Built Environment 5 (4). <https://www.sfei.org/documents/multi-year-water-quality-performance-and-mass-accumulation-pcbs-mercury-methylmercury>

⁸ Li and Davis, Aug. 2009. Water quality improvement through reduction of pollutant loads using bioretention. Jn. Env. Eng. 135(8), ASCE. [https://doi.org/10.1061/\(ASCE\)EE.1943-7870.0000026](https://doi.org/10.1061/(ASCE)EE.1943-7870.0000026)

⁹ BASMAA, Feb. 8, 2019. Pollutant removal from stormwater with biochar amended bioretention soil media (BSM). https://www.flowstobay.org/wp-content/uploads/2020/07/11-BASMAA_C.11_C.12_POC-BSM-Project-Report_2019-02-08_Final_UCMR-WY-2018.pdf

¹⁰ Gilbreath, A.; Pearce, S.; Shimabuku, I.; McKee, L. 2018. Bay Area Green Infrastructure Water Quality Synthesis. SFEI Contribution No. 922. San Francisco Estuary Institute: Richmond, CA.

<https://www.sfei.org/documents/bay-area-green-infrastructure-water-quality-synthesis>

¹¹ Monson, Bruce, May 2007. Effectiveness of stormwater ponds/constructed wetlands in the collection of total mercury and production of methylmercury. MN Pollutant Control Agency: St. Paul, MN.

<https://www.pca.state.mn.us/sites/default/files/tdr-q1-05.pdf>

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Master Response Identifier: C.3-16

Comment Identifier: BIA Bay Area-2,3, ACCWP-a3,18, CCCWP-25, SMCWPPP-72, SCVURPPP-33, Walnut Creek-1,2,3,4, Oakland-9, EBALDC-1,4,5,6,7,8,10, Oldcastle-5

Provision No.: C.3.e.ii.(5) – Special Projects, Category C.

Comment: *An analysis submitted by the Permittees in February 2015 showed that as of that time, 3.6% of Regulated Project impervious area was associated with Special Projects, and 1.3% of that same impervious area was treated by non-LID, and based on that analysis, the Water Board retained Provision C.3.e.ii in MRP 2.*

Response: As noted in the Fact Sheet, Permittees' implementation of C.3.e.ii.(5) Category C Special Projects during MRP 2 (to-date) has resulted in the treatment of approximately 324 acres of impervious surface by non-LID measures region-wide, most of which is attributable to projects for which the Permittees' reporting did not clearly make the required demonstration that it was infeasible to incorporate onsite LID or contribute to offsite LID, as allowed by C.3.e.i. Therefore, Category C has been revised to target affordable housing development and redevelopment projects, as C.3.e.i already provides sufficient flexibility for other non-affordable housing development and redevelopments that would have qualified as Category C Special Projects in the Previous Permit.

Master Response Identifier: C.3-17

Comment Identifier: Part 3) of BIA Bay Area-2,3, ACCWP-a3,18, CCCWP-25, SMCWPPP-72, SCVURPPP-33, Walnut Creek-1,2,3,4, Oakland-9, EBALDC-1,4,5,6,7,8,10, Oldcastle-5

Provision No.: C.3.e.ii.(5) – Special Projects, Category C.

Comment: *Transit-oriented development projects align with various other agencies' priorities and provides water quality benefit and should continue to be included as Category C Special Projects.*

Response: TOD projects may still qualify as Special Projects, if they satisfy the Special Projects criteria.

The rationale for the removal of the TOD criteria from Category C is provided in the Fact Sheet: Category C of the Previous Permit primarily credited transit-oriented development (via Location Credits) and resulted in the treatment of approximately 324 acres of impervious surface by non-LID measures region-wide, most of which is attributable to projects for which the Permittees' reporting did not clearly demonstrate that it would have been infeasible to incorporate onsite LID or contribute to offsite LID, as allowed by C.3.e.i. Therefore, Category C has been revised to solely target affordable housing development and redevelopment projects, as C.3.e.i in this Permit

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already provides sufficient flexibility for other non-affordable housing development and redevelopments that would have qualified as Category C Special Projects in the Previous Permit.

The Fact Sheet goes on to explain that Category C now focuses on affordable housing criteria (instead of TOD) for determining the total LID Treatment Reduction Credit available for Category C Special Projects. Affordable housing criteria are included in Category C for two primary reasons.

First, affordable housing projects typically have high DUs/acre (as further incentivized by the Density Credits) and are typically located near public transportation (as further incentivized by the Location Credits), and thus they likely produce less automobile traffic (resulting in, for example, less pollutant loading to the MS4) compared to other development and redevelopment projects that do not have those characteristics.

Second, affordable housing credited by this Provision will help reduce unsheltered homelessness, which is expected to reduce pollutant discharges (e.g., of trash and sewage) from homeless encampments and other sources (e.g., RVs) into MS4s.¹² The Water Board recognizes that whether to allow for affordable housing is entirely within the Permittee's land use and zoning authority and discretion. Since such development can reduce the discharge of pollutants from MS4s, the Affordable Housing Credits are provided in the Permit. It will benefit the unhoused population, as follows: The affordable housing criteria are structured in such a way that significant portions of the allowable rent/mortgage rates are capped for Extremely Low income households (0-30% of AMI), Very Low income households (31-50% of AMI), and Low income households (51-80% of AMI), rather than allowing all affordable housing units to qualify even if they only are affordable for Moderate income households (81-120% of AMI).

The link to water quality improvement is expected to decline as rent/mortgage rates increase, as rent/mortgage rates as high as the Moderate level are likely to reduce unsheltered homelessness and its associated impacts at a much lower rate; Moderate rent/mortgage rates (rent rates in particular) are effectively market rate because they can be as high as 120% of AMI. For example, in the East Bay, the current average monthly rent cost (\$2,440) is within the lowest Moderate income level, that being (30 percent of) the Moderate income level for a 1-person household (\$2,637.50).¹³

¹² Batko, Oneto, and Shroyer, Dec. 2020. Unsheltered Homelessness: Trends, Characteristics, and Homeless Histories. Urban Institute, pp. 12-13.

¹³ <https://www.rentcafe.com/average-rent-market-trends/us/ca/east-bay/>

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Master Response Identifier: C.3-18

Comment Identifier: Part 4) of BIA Bay Area-2,3, ACCWP-a3,18, CCCWP-25, SMCWPPP-72, SCVURPPP-33, Walnut Creek-1,2,3,4, Oakland-9, EBALDC-1,4,5,6,7,8,10, Oldcastle-5

Provision No.: C.3.e.ii.(5) – Special Projects, Category C.

Comment: *Category C Special Projects criteria are too prescriptive, conflict with state/regional/local criteria (e.g., CA Density Bonus Law), and should be revised so that any amount of affordable housing qualifies a project for 100% non-LID treatment.*

Response: Water Board staff reviewed the California Density Bonus Law¹⁴ and two Metropolitan Transportation Commission grant/loan programs, the Transit-Oriented Affordable Housing Fund (TOAH)¹⁵ and the Bay Area Preservation Pilot Program (BAPP).¹⁶ The proposed Category C criteria do not conflict with the California Density Bonus Law, TOAH, or BAPP. Compliance with the Category C criteria does not preclude compliance with those other programs, and vice versa. Moreover, the fact that an affordable housing project may potentially qualify for density bonuses, incentives or concessions, and waivers or reductions in development standards under the Density Bonus Law does not also mean that the project is exempt from controlling stormwater pollutant discharges to the MS4 under the federal Clean Water Act. Local jurisdictions may deny requested incentives, concessions, or waivers for various reasons, including if the incentive, concession, or waiver would have specific adverse impacts on the physical environment or would be contrary to state or federal law. (Gov. Code, § 65915, subds. (d)(1) and (e)(1).)

Furthermore, Permittees already review these criteria (i.e., percent affordable housing DUs) as part of their ongoing assessment of proposed projects' compliance with the referenced programs (e.g., criteria for the California Density Bonus Law), so review of the Category C criteria for prospective affordable housing projects during MRP 3 will not constitute a significantly new or additional task.

The main difference we identified is that the California Density Bonus Law provides a density bonus at lower percentages of affordable housing DUs as compared to the Category C criteria proposed in the TO – a density bonus is provided at as low as 5% of DUs limited to the Very Low income category and as low as 10% of DUs limited to the Low income category. We agree that the Category C criteria as well should provide a credit at lower percentages of affordable housing DUs.

Therefore, we added a third credit, a 25% non-LID credit, for: 50% of DUs limited to the Moderate income category, 25% of DUs limited to the Low income category, 15% of

¹⁴

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=65915&lawCode=GOV

¹⁵ http://www.bayareatod.com/wp-content/uploads/2018/08/TOAH-II-Acq-Loan-Term-Sheet-short-Aug-2018_FINAL.pdf

¹⁶ <https://mtc.ca.gov/sites/default/files/11a%20-%202021-0032%20-%20Reso-4454%20-%20BAPP%20Program%20Revisions.pdf>

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DUs limited to the Very Low income category, and 5% of DUs limited to the Extremely Low income category.

We also revised the second credit, the 35% credit, by increasing it to a 50% credit, but we have also revised the required minimum number of DUs in the Extremely Low income category from 0% of DUs to 15% of DUs, recognizing that for the increased credit, to achieve the intended water quality nexus, it is critical to support housing for households in the Extremely Low income category.

We added the words “at least” before each criterion, to make it clearer that affordable housing projects are not penalized by including more affordable housing DUs than what is required. We also added a table to more clearly communicate these criteria.

The affordable housing criteria are structured in such a way that significant portions of the allowable rent/mortgage rates are capped for Extremely Low income households (0-30% of AMI), Very Low income households (31-50% of AMI), and Low income households (51-80% of AMI), rather than allowing all affordable housing units to qualify even if they only are affordable for Moderate income households (81-120% of AMI). The link to water quality improvement is expected to decline as rent/mortgage rates increase, because rent/mortgage rates as high as the Moderate level are likely to reduce unsheltered homelessness and its associated impacts at a much lower rate; Moderate rents/mortgages (rents in particular) are effectively market rate because they can be as high as 120% of AMI. For example, in the East Bay, the current average rent cost (\$2,440) is well-within the lowest Moderate income level, that being the Moderate income level for a 1-person household (\$2,637.50).¹⁷

To afford Moderate (market-rate) housing, households in the Low/Very Low/Extremely Low income levels have to pay significantly more than 30% of their household.¹⁸ That is to say, such households require dedicated affordable housing that is proportionate to their income level, and that is exactly what the criteria in the Tentative Order provide, which is necessary to justify the water quality nexus that is discussed in the Fact Sheet.

Prior to the pandemic, about half of California renters were rent burdened, which means that more than 30% of their income went towards rent, and nearly one third of California renters were severely rent-burdened, which means that more than half of their income went towards rent. The numbers are worse for families of color; in 2019, black renter households were about twice as likely as white renter households to be severely cost burdened.¹⁹

Nationally, 75% of households that qualify for the Department of Housing and Urban Development’s Housing Choice Voucher (HCV) program (including Section 8, HUD-VASH and other tenant-based vouchers that are all included in the Appropriations

¹⁷ <https://www.rentcafe.com/average-rent-market-trends/us/ca/east-bay/>

¹⁸ https://ebho.org/wp-content/uploads/2020/05/EB-1400_Guidebook2020-21_WEB.pdf

¹⁹ <https://www.cbs8.com/article/news/local/california/calmatters/why-is-housing-so-expensive-in-california/509-e463dd3f-4041-43b9-8983-4226caee88e2>

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Committee's Tenant-Based Rental Assistance, or TBRA, account) are in the Extremely Low Household income level.²⁰

If the Permit allowed non-LID credit for development projects that provide only Moderate level DUs, or even only Low level DUs, there would be a very limited water quality nexus. And if we modify the criteria to make them easier for developers to achieve, there will be significantly less of a water quality nexus, which likely would not justify the corresponding non-LID credit and reduced water quality benefit of the associated controls.

Master Response Identifier: C.3-19

Comment Identifier: Part 5) of BIA Bay Area-2,3, ACCWP-a3,18, CCCWP-25, SMCWPPP-72, SCVURPPP-33, Walnut Creek-1,2,3,4, Oakland-9, EBALDC-1,4,5,6,7,8,10, Oldcastle-5

Provision No.: C.3.e.ii.(5) – Special Projects, Category C

Comment: *Permittees implemented Category C Special Projects appropriately and in good faith during MRP 2, and in some cases negotiated with developers to include more LID than was absolutely required by the criteria.*

Response: Our review of Permittees' implementation of C.3.e.ii.(5) Category C Special Projects during MRP 2 found that, with few exceptions, Permittees used the amount of non-LID credit that was allowed according to the criteria (rather than only as much as was technically necessary), and that Permittees allowed developers to implement C.3.e.ii.(5) even when reporting (i.e., narrative summaries of infeasibility) did not satisfactorily demonstrate that it was infeasible to incorporate LID treatment either onsite or offsite, which demonstration is required by C.3.e.ii.(5). In some project-specific reviews completed by the Water Board for discretionary 401 Water Quality Certifications, we found that some projects had appropriately considered infeasibility. However, we determined that for others, including a 20+ acre residential project in Alameda, an LID design was feasible and the project proponent revised the project's design to incorporate those measures. In part to address these issues, we revised the criteria in MRP 3.

²⁰ <https://endhomelessness.org/ending-homelessness/policy/affordable-housing/>

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Master Response Identifier: C.3-20

Comment Identifier: EBALDC-13,14,15,16, ACCWP-a3

Provision No.: C.3.e.ii.(5) – Special Projects, Category C.

Comment: *More than 60% of Oakland's 25 Category C Special Projects over two years [two-year period not identified] included some amount of affordable housing. Extent and type of affordable housing units not identified. All but three of those would have been ineligible under the criteria in the Tentative Order, and those three would only receive up to 20% LID reduction credit according to C.3.e.ii. The other 22 projects would not have qualified, and consequently there was the potential for those affordable projects not to have been constructed.*

Response: Comment noted. While we recognize the challenges associated with building housing, including affordable housing, in the Bay Area, we disagree that an inability to complete all or a portion of required water quality treatment on-site using other than LID measures, or off-site using the Permit's Alternative Compliance provision, *prima facie* renders affordable housing projects infeasible. We also recognize that one strategy is to subsidize a portion of units (i.e., one or more) within a larger for-profit housing project. One comment requested that the entirety of such a project (i.e., with as little as 1 affordable unit) be allowed to implement other than LID measures. The unintended adverse effect of doing so would be to allow increased water quality impacts from market-rate residential projects as a means of subsidizing the production of as little as one unit of affordable housing. However, the Permit has sufficient flexibility, both within the LID design approach and within the Alternative Compliance subprovision, to support meeting water quality requirements while also producing housing. And, as noted elsewhere in this response, Permittees have flexibility to modify other project requirements, including parking, allowing increased densities, or pursuing other development models, as a means of supporting affordable housing production.

Master Response Identifier: C.3-21

Comment Identifier: San Mateo County-4, ACCWP-a2i, CCCWP-21

Provision No.: C.3.j.ii.(2) – Green Infrastructure, Numeric Implementation.

Comment: *C.3.j.ii.(2) abandons the programmatic approach that the Water Board adopted in MRP 2 and that the Permittees incorporated into their Green Infrastructure Plans, constrains flexibility and discourages multi-jurisdictional cooperation, and will reduce the Permittees' ability to implement green infrastructure projects with co-benefits, because they will be forced to build the cheapest/easiest green infrastructure to comply with the mandate.*

Response: We disagree. C.3.j.ii.(2) continues the programmatic approach set forth in MRP 2. The green infrastructure planning approach in MRP 2 was intended, in part, to

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establish a framework for future GI implementation by identifying excellent project opportunities and targets for the amount of implementation over the coming decades. C.3.j.ii.(2) is intended to support implementation, including ongoing institutional capacity building. The implementation is likely to be at a greater pace because Permittees' Green Infrastructure Plans are insufficient to reduce the discharge of stormwater pollutants to the maximum extent practicable. Because C.3.j.ii.(2)(b) allows the retrofit requirements to be met at the countywide level, multi-jurisdictional cooperation is explicitly encouraged, rather than discouraged.

First, C.3.j.ii.(2) does not preclude Permittees' implementation of their Green Infrastructure Plans. The opposite would appear to be true.

Second, C.3.j in MRP 2 was a planning requirement, included in lieu of expanding the definition of Regulated Projects in C.3.b.ii to include all new and redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface and road projects that just replace existing impervious surface, at that time (MRP 2). The MRP 2 Fact Sheet clearly stated, however, that "subsequent Permits may include different impervious surface thresholds or other criteria for Regulated Projects."

In our consideration of changes to propose for MRP 3, Water Board staff reviewed the Permittees' commitments to green infrastructure implementation in their Green Infrastructure Plans, and found them to be insufficient to address the problem associated with impervious surfaces. With few exceptions, the Green Infrastructure Plans do not commit to accelerate the existing rate of green infrastructure implementation, or to retrofit existing impervious surfaces (particularly, in the public right of way), with clean water controls to address urban runoff discharges, beyond what the MRP 2 already required for Regulated Projects using an LID approach. Consequently, the Green Infrastructure Plans are limited in the extent to which they would reduce the discharge of urban runoff pollutants into receiving waters over time.

These outcomes represent a missed opportunity, in that (as stated above) MRP 2's green infrastructure planning requirement was included as an alternative to expanding the Regulated Project definitions to include all new and redevelopment projects that create or replace 5,000 square feet of impervious surface, and road projects that just replace existing impervious surface. That is, in MRP 2, green infrastructure planning was included in part to provide municipalities the opportunity to evaluate and account for smaller area regulated projects and road replacement projects as part of their Green Infrastructure Plans, and develop commitments to implementation that would be more efficient and effective for them than a Permit requirement to include all such projects.

Because the Green Infrastructure Plans did not include those commitments, the Tentative Order includes a modest green infrastructure implementation requirement, and modifications to the Regulated Project categories consistent with other MS4 permits (including those cited in the Fact Sheet).

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Master Response Identifier: C.3-22

Comment Identifier: Oakland-7,10, Los Altos-4, San Mateo County-15, SCVURPPP-37, Palo Alto-4, CCCWP-22

Provision No.: C.3.j.ii.(2) – Green Infrastructure, Numeric Implementation.

Comment: *It will be challenging for Permittees to achieve the C.3.j.ii.(2) Numeric Implementation retrofit requirements (as laid out in Table H-1 in Attachment H) because they do not or may not have adequate funding to build and maintain the projects, or because they have other higher priorities for those funds, or otherwise because the projects are expensive. Construction costs combined with a condensed schedule for planning, budgeting, design, and implementation will make projects more expensive to implement than the opportunity-based approach described in Permittees' Green Infrastructure Plans.*

A key purpose of the Green Infrastructure Plans is to ensure Permittees advance implementable multi-benefit projects that have local public support and are eligible for state and Federal funding when those funds (generally competitive grants) become available.

As an example, the City of Union City estimated that their H Street retrofit project cost approximately \$660,000 per acre treated. At that rate, treating 10 acres would cost \$6.6 million. The Water Board should conduct a cost benefit analysis to determine if that level of expenditure is appropriate for the minimal water quality benefits that would be achieved.

Response: Implementation costs may be offset to a certain extent by grant funds, collaboration with other Permittees, and incorporation of green infrastructure features into budgeted and future infrastructure project. The total number of – and geographical extent of – green infrastructure projects implemented over time includes both private and public green infrastructure projects, so the burden for the total cost of implementation does not rest solely on municipalities.

In developing the requirements in the Tentative Order, Water Board staff considered cost information from California grant-funded projects, as well as from grant-funded projects in other areas, including, but not limited to, Portland, Oregon. The significant shift to, for example, green streets design, from designs that do not substantively address their water quality impacts, will result in a concomitant shift over time in the MEP standard for street design.

Additionally, Water Board staff recognizes that much of the region's existing road infrastructure was constructed without full consideration of its environmental impacts. One result of the Clean Water Act is that we work to gradually address such impacts, within the regulatory structure set up by the Act, including MS4 NPDES permits. This may have the effect of incorporating – into roadway costs – those external costs not originally addressed, and, allowing the public to more clearly recognize those costs and

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determine how they will be funded. The green infrastructure planning completed during the Previous Permit may allow reductions in total costs and significant non-water quality benefits—for example, through incorporating measures that more inexpensively address not only water quality, but also downstream flooding (as compared to alternatives like engineered flood control channels), or which reduce pedestrian and related deaths and injuries by calming traffic, or which raise property values by developing a streetscape more desired by residents.

The choice faced under the MEP standard and requirement to achieve wasteload allocations for impairing pollutants is not a choice between the status quo (i.e., maintaining, possibly in perpetuity, the existing road infrastructure without addressing its water quality impacts) and green infrastructure planning. Rather, it is a choice between, or among, different solutions that address the ongoing contributions of runoff from urbanized area, including roads, to receiving waters. Green infrastructure represents a solution that is likely significantly more cost effective, more flexible, and which gives Permittees a greater degree of control than other options, such as end-of-pipe treatment. Additionally, we anticipate that, similar to the incorporation of complete street requirements into transportation grant funding, green street requirements will also be added, thus making such projects competitive for future transportation grant funds. An example is SB 1's funding of green infrastructure elements.

Various references identify the significant water quality benefits, but also additional benefits, such as high quality placemaking, pedestrian/multi-modal safety, reductions in the urban heat island effect, and other benefits (e.g., water quality benefits are discussed in detail in references available at the International Stormwater BMP Database, www.bmpdatabase.org, and references on costs and benefits are available at [Green Infrastructure Cost-Benefit Resources | US EPA](#).) The significant incorporation of green infrastructure as a part of the solution to urban runoff problems by cities including, but not limited to, Chicago, Milwaukee, Detroit, Kansas City, Philadelphia, New York, Portland and Eugene, Oregon, Seattle, Los Angeles, Minneapolis, San Diego, and Auckland, New Zealand, in China's "sponge city" approach, and elsewhere, as well as the concomitant support for those kinds of solutions by organizations like NRDC, TreePeople, and others, indicates the positive role green infrastructure can play in the urban environment.

We agree that there is a cost to green infrastructure and that Permittees may have other priorities (e.g., maintaining pavement condition). That was part of the impetus behind the green infrastructure planning subprovision—for permittees to self-determine a rate of impervious surface retrofit by recognizing that as a priority and committing to a minimum rate of implementation. The cost is likely not as significant as the one Union City project noted by the commenter, because that grant-funded project involved extensive pervious pavement and concrete curb work that were substantially more expensive than other LID-based treatment options. In the absence of a grant-funded pilot project, it is likely that a Permittee would choose less-expensive measures. In its

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comment letter, SCVURPPP estimated a per-acre treatment cost of \$213,000, approximately 1/3 of the Union City example.

That said, recognizing the cost of GI implementation and that the proposed requirement is intended to effect retrofit in the current permit term while building for the future, we have reduced the cap to 5 from 10 acres, which will accordingly reduce the required retrofit regionwide, from 274 acres down to 217 acres, a reduction of 20 percent.

Please also see the response to the following combined comment, in the Response to Comments table. C.8.d.iv Please also see the response to the following combined comment, in the Response to Comments table:

ACCWP-a1i,a2i,22
Oakland & San Jose-2b

Master Response Identifier: C.3-23

Comment Identifier: Oakland-7

Provision No.: C.3.j.ii.(2) & C.3.b.ii.(5)

Comment: *Incorporating GSI into Road Reconstruction Projects should only be required where it is technically feasible. Technical infeasibility should not mandate alternative compliance for which a suitable location/project may not be possible to identify.*

Response: Green infrastructure employs LID, which is recognized as a cost-effective, beneficial, and holistic integrated stormwater management strategy that provides a more-resilient, sustainable system that slows runoff by dispersing it to vegetated areas, harvests and uses runoff, and promotes infiltration. The Tentative Order does not require Permittees to implement GSI where it is infeasible.

The comment implies a false choice—the idea that there is a choice between either addressing the existing water quality impacts of built infrastructure and urban areas (e.g., via LID retrofit), or simply not implementing LID and leaving the water quality impacts in place indefinitely because of technical constraints.

The option is not whether, but rather how to address them (in a feasible manner), and the green infrastructure approach initiated in MRP 1 and continued through MRP 2 and MRP 3 is a flexible approach that maximizes the Permittees' ability to best plan and implement green infrastructure within their jurisdictions. To the extent a particular green infrastructure approach is challenging to incorporate at a particular site, C.3.j.ii.(2) allows Permittees the flexibility to pursue implementation at a different site or sites within their jurisdictions, as well as the opportunity to coordinate with neighboring jurisdictions.

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One of the key components of the Green Infrastructure Plans was the identification of means and methods to prioritize particular areas and projects within each Permittee's jurisdiction, at appropriate geographic and time scales, thus allowing Permittees to self-determine the right balance for their communities and where LID facilities could and/or should be constructed. Because of that planning effort, each Permittee now possesses a prioritized list of technically feasible green infrastructure projects.

C.3.j.ii.(2) can be summarized as follows: Permittees will be required to implement some of the projects on those lists – as little as one project for less-populous Permittees, and likely several projects for more-populous Permittees. It does not require Permittees to implement non-identified or non-prioritized projects, to the contrary, the expressed intent is to prompt the Permittees to implement already-identified and already-prioritized projects.

Recognizing the technical challenges associated with green streets projects in particular, C.3.j.ii.(3) provides the following additional flexibility. With cause (e.g., significantly constrained area for a BMP, substantially increased costs for that sizing relative to the C.3.j.i.(2)(g) approach outlined in the Previous Permit, significant amounts of run-on from adjacent areas, or other substantial constraints identified by Permittees) and with reporting in their Annual Reports, Permittees may use the Guidance for Sizing Green Infrastructure Facilities in Streets Projects with companion analysis Green Infrastructure Facility Sizing for Non-Regulated Street Projects submitted in June 2019 (and the conditional approval of that submittal), to size Non-Regulated green streets projects.

Master Response Identifier: C.3-24

Comment Identifier: Part 1) of Orinda-3, CCCWP-13,22, Oakland-10, Walnut Creek-5, Concord-1

Provision No.: C.3.j.ii.(2) – Numeric Implementation

Comment: *Permittees are challenged to comply with all of the different retrofit requirements in C.3.j and in the rest of C.3. With the threshold for Regulated Projects changing from 10,000 to 5,000 square feet (sf), there will be fewer “voluntary” projects that will count towards achieving this target.*

Response: Regarding the comment that the changes to C.3.b will result in fewer voluntary projects that can be counted towards the Numeric Implementation retrofit requirements, the former does not preclude compliance with the latter. In any case, there will still be many non-Regulated projects that can be counted. Regarding the comment that C.3.j.ii.(2) will be challenging to implement, please see the many subprovisions in C.3.j.ii.(2) aimed at facilitating Permittees' compliance and implementation, which were crafted in large part based on Permittee input:

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- C.3.j.ii.(2)(b) allows Permittees to meet the numeric retrofit requirements listed in Table H-1 of Attachment H on a countywide basis.
- C.3.j.ii.(2)(d) allows Non-Regulated Projects and green infrastructure beyond the minimum required by C.3.d for a Regulated Project to be counted towards the Numeric Implementation retrofit requirements.
- C.3.j.ii.(2)(e) allows projects completed after January 1, 2021, to be counted towards the C.3.j.ii.(2) Numeric Implementation retrofit requirements.
- C.3.j.ii.(2)(f) allows projects completed by June 30, 2027, to be counted towards the C.3.j.ii.(2) Numeric Implementation retrofit requirements. However, if a project is not completed by June 30, 2027, it may still count towards the C.3.j.ii.(2) Numeric Implementation retrofit requirements, if it is approved and fully funded.
- C.3.j.ii.(2)(g) allows treatment measures implemented to satisfy Provision C.3 requirements, including the numeric retrofit requirements specified in C.3.j.ii.(2), to be used to satisfy C.11 Mercury Controls requirements, and C.12 PCBs Controls requirements, as long as they satisfy the other aspects of those requirements, such as location (i.e., for PCBs, controls that are implemented in areas of old industrial land use or otherwise in areas with identified relatively high concentrations of PCBs).
- C.3.j.ii.(2)(h) allows Permittees to credit the acreage of impervious surface created or replaced for Regulated Road Reconstruction Projects, specified in C.3.b.ii.(5), towards the Numeric Implementation retrofit requirements specified in C.3.j.ii.(2).
- C.3.j.ii.(2)(i) allows Permittees with small rural jurisdictions (e.g., whose stormwater conveyance systems are dominated by roadside ditches) to collectively submit a proposal, subject to the Executive Officer's approval, for pilot projects investigating the use of alternative green infrastructure techniques to comply with the C.3.j.ii.(2) Numeric Implementation retrofit requirements, with construction by June 30, 2027.
- Finally, C.3.j.ii.(2)(j) allows Permittees with existing ordinances (or that adopt new ordinances by June 30, 2023) that require Regulated Projects to treat significantly more impervious surface than the minimum required by C.3.c-d, to offset their Numeric Implementation retrofit requirements specified in C.3.j.ii.(2) by a one-time credit of up to 25 percent, and by no greater than one acre.

Please also see the response to the following combined comment, in the Response to Comments table:

ACCWP-a1i,a2i,22
Oakland & San Jose-2b

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C.8 (Water Quality Monitoring)

Master Response Identifier: C.8 -1

Comment Identifier: Baykeeper-11

Provision No.: C.8

Comment: Adequacy of Monitoring Program to Determine Compliance

Comment: *Provision C.8's Monitoring Program Fails to Monitor Whether Stormwater Discharges Comply with MRP Conditions, in Violation of the Clean Water Act's Minimum Monitoring Requirements. It is well-established that every NPDES permit must include discharge monitoring sufficient to determine compliance with all permit limits—in this case, Draft MRP 3's requirement to comply with all applicable receiving water limitations. The monitoring program in Provision C.8 fails to comply with this core requirement. Neither the Regional Board, nor the Permittees, nor the public can use the monitoring in Provision C.8 to determine whether a Permittee is in compliance with the permit terms or the Clean Water Act.*

Response: The Tentative Order requires sufficient compliance monitoring, including the type, interval and frequency sufficient to yield data which are representative of the monitored activity, namely stormwater discharges. For context, it is important first to note that U.S. EPA has long recognized the difficulties inherent in monitoring stormwater because stormwater dischargers are highly variable and unpredictable in terms of flow and pollutant concentrations and the relationship between discharges and water quality can be complex. (61 Fed. Reg. 57425, 57426 (November 6, 1996).) Accordingly, U.S. EPA has early on encouraged permitting authorities to evaluate monitoring needs and stormwater objectives so as to select useful and cost-effective monitoring approaches. (*Id.* at 57428.) For most dischargers, U.S. EPA said monitoring can be conducted for two reasons: “1) to identify if problems are present, either in the receiving water or in the discharge, and characterize the cause(s) of such problems and 2) to assess the effectiveness of stormwater controls in reducing contaminants and making improvements in water quality.” (*Id.*)

For MS4 permittees, U.S. EPA stated that stormwater permits may use a variety of stormwater monitoring tools including “receiving water chemistry; receiving water biological assessments (benthic invertebrate surveys, fish surveys, habitat assessments, etc.); effluent monitoring; chemical, whole effluent and visual examinations; illicit connection screenings; and combinations thereof, or other methods,” recognizing that end-of-pipe monitoring is more appropriate for an industrial facility than for a municipal facility. (*Id.*)

U.S. EPA has stated that the standard end-of-pipe monitoring that has taken place as the Phase I storm water program has matured “has produced data of limited usefulness because of a variety of shortcomings” identified in the National Research Council's (NRC) 2009 report “Urban Stormwater Management in the United States.” (See U.S.

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EPA's District of Columbia MS4 Permit No. DC0000221 Fact Sheet, 2011.) U.S. EPA endorsed the NRC's strong recommendations that MS4 programs modify their evaluation metrics and methods to include (1) biological and physical monitoring; (2) better evaluations of the performance/effectiveness of controls and overall programs; and (3) an increased emphasis on watershed scale analyses to ascertain what is actually going on in receiving waters. (*Id.*)

Monitoring of discrete outfalls and receiving water locations throughout the Permittees jurisdictions is not feasible or practicable. There are literally thousands of MS4 outfalls, many of them and associated receiving water locations are not accessible or pose a significant safety risk during storm events. Also, due to the episodic nature and randomness of storm events, which often occur in non-daylight hours, storm even sampling is logistically challenging even at accessible locations, and sampling of many sites during a storm event is very challenging. Furthermore, presence of pollutants of concern in MS4 discharges and receiving waters is associated with land use and activities that are not associated with or constrained by political boundaries. Monitoring at representative locations regardless of jurisdiction is more rigorous, more valid, and more cost-effective than recurrent monitoring at specified locations in each Permittee's jurisdiction, which may or may not be representative of pollutant sources and controls. Representative monitoring coupled with accounting and tracking of Permittees' control actions yields the best individual Permittee compliance data.

The Tentative Order's monitoring requirements recognize the limitations of stormwater monitoring and require sufficient strategic monitoring²¹ to ensure compliance with the permit and to yield data which are representative of the monitored activity. It requires a combination of monitoring provisions designed to monitor urban creeks as well as the ultimate receiving water, the Bay. In this fashion, Permittees will develop information concerning the quality of receiving waters, as well as information that will assist in locating pollutant sources in watersheds and assessing effectiveness of source control measures. The monitoring program also requires data collection to yield information essential for crafting improved control measure implementation requirements in future permits. The monitoring for these two purposes (receiving water monitoring and finding sources/control measure effectiveness) is summarized in the following.

Receiving Water Monitoring:

The Tentative Order has been revised to include additional receiving water monitoring in response to the commenter's comments. Provision C.8.f and C.8.h.iv require pollutants of concern (POC) receiving water monitoring in the waterbodies directly receiving the discharges from MS4 during wet and dry seasons. The waterbodies monitored through this provision are generally creeks that flow to San Francisco Bay. The POC receiving

²¹ A monitoring program that balances monitoring frequency and locations with the utility of the data is important. In addition, endless monitoring, which may or may not be representative of the monitored activity, should not be substituted for control actions to reduce pollutants discharges from MS4s.

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water monitoring is limited to copper, zinc, fecal indicator bacteria, and those pollutants in urban runoff that may result in levels in receiving waters approaching or exceeding water quality objectives. Sampling locations and waterbodies are required to be spatially and temporally representative of the sampled waterbody and waterbody type. This monitoring is important, but the Water Board recognizes it is not without challenges. For example, there are many possible locations to monitor so choosing locations representative of a single waterbody is a challenge. Moreover, it is not possible to monitor every waterbody so a subset of waterbodies (and locations within those waterbodies) must be selected in an attempt to obtain data that are generally representative of conditions in waterbodies receiving discharges from MS4s. Even more challenging is the variable and episodic nature of stormwater itself. There are many challenges associated with mobilizing field crews to collect data during storm events or even during the wet season at exactly the right time. These challenges have been described in the Fact Sheet and elsewhere in this document.

In general, water (and pollutants) flow through MS4 to a large number of storm drains and then to local tributaries and then, finally, to San Francisco Bay or Estuary. In this respect the San Francisco Estuary is the ultimate receiving water for all discharges from the MS4s. The Tentative Order explicitly requires (Provision C.8.c) monitoring of the San Francisco Estuary and also includes specific management questions that such monitoring should address to assess the condition of this receiving water. Permittees fulfill these monitoring requirements by contributing resources to the award-winning²² Regional Monitoring Program for Water Quality in San Francisco Bay (RMP) and by actively participating in its governance.

The monitoring conducted through the RMP is another important component of receiving water limitations (RWLs) monitoring required by the Tentative Order. The RMP has a yearly monitoring budget of over \$4 million for status and trends and special studies. This monitoring includes both wet season and dry season data collection in water, sediment, fish, shellfish, and birds. The analytes monitored in these media provide a comprehensive assessment of water quality in the estuary. With the recently completed redesign of the status and trends component of the RMP, there is an increasing emphasis on monitoring shallow areas of the Bay where tributaries that are influenced by urban runoff enter the Bay. The contaminant concentrations in Bay water, sediment and biota represent an integration of all the sources of contaminants (e.g., urban runoff, atmospheric deposition, wastewater treatment). Comparison of RMP data to water quality objectives allows water quality managers to determine if RWLs are achieved in the ultimate receiving water, San Francisco Bay. The RMP also conducts studies to associate observed presence of POCs in the Bay with presence and loading from sources and pathways, including MS4 discharges. In this way, the comprehensive

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<https://bacwa.org/wp-content/uploads/2021/07/RMP-NACWA-Award-Information-2021.pdf>

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monitoring conducted through the RMP is a powerful complement to the tributary-focused RWL monitoring specified in Provision C.8.h.iv.²³

In addition, a portion of the trash monitoring required by Provision C.8.e is intended to determine if trash “discharges of trash from areas within Trash Management Areas controlled to a low trash generation level causing and/or contributing to adverse trash impacts in receiving waters.” Provision C.8.g requires wet and dry weather monitoring of pesticides and toxicity in urban creeks. Provision C.8.f compels Permittees to conduct monitoring to address relevant management information needs associated with a variety of pollutants. The required monitoring will include assessing status of receiving waters for contaminants of emerging concern, copper, PCBs and mercury. Additionally, two of these management information needs concern POC loading to the Bay and the trend in this loading. We explained at length in the Fact Sheet why the complex transport mechanisms and wide spatial distribution of pollutant-bound pollutants like PCBs and mercury require a hybrid modeling and monitoring approach for loads assessment and, hence, compliance determination (with RWLs) as described in the following paragraphs.

Monitoring for compliance with mercury and PCBs load reduction requirements is two-pronged. First, the permit requires Permittees to use a load reduction accounting system (see Provisions C.11.a and C.12.a) to estimate mercury and PCBs load reductions for each type of programmatic control measure consistent with an expected level of control measure implementation intensity. Permittees are required to track and report on their level of implementation through enforceable control measure-specific performance metrics that are associated with the estimated load reductions. In subsequent permit terms, control measures will be implemented based on what is learned in this term from control measure implementation and monitoring, resulting in even more refined, improved, and effective controls. The reason why the MRP assesses control measure implementation compliance through these performance metrics is because assessing load reductions through monitoring alone is not possible. The challenges (described in Fact Sheet section C.8.f) of measuring (through monitoring) PCBs and mercury loads and load reductions include how these pollutants are distributed in watersheds and transported during storm events and the variability of the Bay Area’s climate. The scale of the load reductions resulting from control measure implementation in any single year is small with respect to the variability in monitoring data and loading because of climate variability and other factors.

To overcome the challenges of using monitoring data alone to assess loads and compliance with RWLs, the Fact Sheet explains how watershed models, calibrated and

²³ The commenter points out that a Water Board staff person stated in a deposition that RMP monitoring is not designed to determine compliance with RWLs. However, that staff person is only partially familiar with the RMP. The RMP conducts monitoring to determine whether water quality objectives for POCs are achieved in the Bay, which serves as RWLs monitoring for Bay receiving waters. The RMP conducts some monitoring of urban streams tributary to the Bay for the purpose of determining sources and loadings of POCs in the Bay, but that RMP monitoring is not designed to determine compliance with RWLs in these streams.

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validated with monitoring data, are used to estimate loads and load reductions for PCBs and mercury. This hybrid approach is the second component of compliance monitoring for mercury and PCBs load reductions. At the aggregated level of multiple watersheds or the entire Bay Area, the aggregated load estimate from the model at the regional scale is usually more precise than the estimate for any single watershed. The problems associated with climate variability impacting load variability cannot be entirely avoided by using models, but the models can be used to simulate loading over multiple years to generate an average load over several years where rainfall amounts (and hence loads) may have varied. In this way, the models can smooth out climate variability and generate a reasonably accurate average loading over the modeled period. These multi-year average estimates are generally more accurate than modeled estimates for any single year.

The models ultimately rely on monitoring data for their calibration and validation, however. If actual loading changes have not manifested in monitoring data, then the models will not show loading changes either. If the Bay Area experiences very little rainfall, then loading can decrease just by virtue of less flow and less suspended sediment even if no control measures were implemented. Conversely, if the Bay Area experiences several very wet years, loading can actually increase because the increase flow and suspended sediment could overwhelm the reductions from source control implementation. Such is the challenge of climate variability in assessing loading reductions. Because control measures for PCBs and mercury, even if effective, result in relatively small loading changes during any particular year (e.g., about 1.47 kg/yr estimated PCBs load reduction during this permit term), the monitoring data on which the models rely are unlikely to detect the impact of these load reduction changes in measured concentrations. Therefore, modeled loading estimates are not likely to be sensitive enough to confirm this level of change. The models will be more useful with longer time scales such that enough land use change and concentration change has occurred such that model can detect the change. In other words, the model works best at large spatial and temporal scales. Nevertheless, the monitoring required in the MRP, used in conjunction with the watershed loading models, should eventually be able to assess progress in loading reduction achieved during this and subsequent permit terms and, thus, progress toward compliance with the RWLs. How rapidly this determination can be made depends on the size of the load reduction signal compared to the magnitude of the “noise” of the variability (climate, storm characteristics, source release characteristics, etc.). As more and more data are collected that can be used to calibrate and validate the models, which are being continuously improved and updated with all new data, this signal should emerge. Indeed, the whole point of the monitoring is to generate loading estimates to detect the load reductions so as to determine compliance with TMDLs (and, hence, receiving water limitations).

Finding Sources and Assessing Effectiveness: The Tentative Order requires substantial monitoring effort devoted to finding pollutant sources in the program area as well as assessing the effectiveness of required control measures. Consistent with U.S. EPA

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guidance, the Water Board views this as a key component of stormwater monitoring so that the problem of pollutants from MS4 discharges can be identified and effectively controlled. For example, Provision C.8.d requires LID monitoring to measure compliance and effectiveness of LID controls by assessing the pollutant removal and hydrologic benefits of different types and designs of LID facilities as well as determining the minimum levels of operation and maintenance necessary to avoid deteriorated LID facilities, systems, and components that reduce pollutant removal and hydrologic performance. In addition to the receiving water trash assessment mentioned previously, Provision C.8.e also requires a robust monitoring program to determine if Permittees' trash management efforts have effectively prevented trash from their jurisdictions from discharging to receiving waters. Finally, the monitoring requirements of C.8.f are designed to compel Permittees to address relevant POC management questions rather than conducting monitoring for the sake of monitoring. These management information needs include finding sources and contaminated portions of watersheds, evaluating control measure effectiveness of and providing support for future management actions, assessing loads relative to TMDL wasteload allocations, and evaluating trends. We explained at length in the Fact Sheet how the widespread spatial distribution and complex transport characteristics require a hybrid modeling and monitoring approach to estimate loads for sediment bound contaminants like PCBs and mercury. Finding PCBs source areas and contaminated watersheds is crucial to the success of an effective PCBs control program because PCBs are difficult to manage once they have been distributed throughout watersheds. Accordingly, monitoring effort directed specifically toward finding highly contaminated source areas and the moderately contaminated catchments in the vicinity of these source areas will yield better information for this purpose than outfall monitoring can. Accordingly, a large portion of the required monitoring effort in MRP2 and continuing in MRP3 is devoted to this information need, and this monitoring supports source area identification requirements in Provision C.11/12.b.

Comment: *Provision C.8 does not mandate wet weather monitoring – Permittees can select dry weather monitoring instead. Thus, the permit regulating urban runoff does not require stormwater runoff sampling. An MS4 permit must assess whether stormwater discharges meet permit terms, and it defies logic that Draft MRP 3 continues to fail to require outfall monitoring for all parameters.*

Provision C.8 does not require outfall sampling from the Permittees' MS4 systems. The Fact Sheet provides a series of rationales for the failure to include outfall monitoring, but does not explain how regional monitoring (or any other monitoring included in Draft MRP 3) can be used to evaluate compliance by any Permittee. In fact, both Regional Board Staff and Permittees have confirmed that current monitoring—continued in Provision C.8—is inadequate to evaluate compliance.

The State Board has confirmed the necessity of end-of-pipe sampling in MS4 permits—particularly where, as here, safe harbors are utilized. As noted by the State Board in

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Orders WQ 2015-0075 and WQ 2020-0038, outfall monitoring is an appropriate way to determine compliance with water quality standards in MS4 permits in conjunction with receiving water monitoring.

Response: Please see the responses to the preceding and next comments on wet weather monitoring and the response to the next comment regarding outfall monitoring. We also note that Provision C.8.e explicitly requires outfall sampling for trash. Outfall monitoring may be a component of monitoring POCs like PCBs and mercury, but the usefulness of these outfall data is limited in assessing loading. We have explained this at length in the C.8.f portion of the Fact Sheet and in the next response. The Tentative Order requires a combination of outfall monitoring, receiving water monitoring, and data collected in watersheds themselves as part of a comprehensive monitoring program designed 1) to identify if problems are present, either in the receiving water or in the discharge, and characterize the cause(s) of such problems; 2) determine compliance; and 3) to assess the effectiveness of storm water controls in reducing contaminants and making improvements in water quality.

Nowhere in State Board WQ Orders 2015-0075 (as amended by 2021-0052-EXEC) or 2020-0038 is there a mandate for wet weather end-of-pipe sampling where an alternative path to compliance with RWLs is provided.

Comment: *Region 2 is the only urban coastal region in the state that does not currently require wet weather outfall discharge monitoring by Phase 1 municipal stormwater permittees. Other regions, including Regions 9 (San Diego), 8 (Santa Ana), and 4 (Los Angeles) require such monitoring from Phase 1 municipal stormwater permittees to facilitate assessment of municipal runoff management programs in effectively prohibiting non-storm water discharges into the MS4 and reducing pollutants in stormwater discharges from their MS4s. Bay Area Permittees have avoided the level of scrutiny and oversight afforded other municipalities in the state and Baykeeper continues to be disappointed that Draft MRP 3 does not meet this minimal level of consistency with other Phase 1 MS4 permits.*

Response: The Tentative Order does require, where appropriate, wet weather outfall monitoring, but this type of monitoring is generally not appropriate for POC loading assessment. We have learned a lot over twenty years of assessing POC loads through the RMP, and that is why we use a hybrid approach of using monitoring data to calibrate watershed loading models (explained at length in section C.8.f of the Fact Sheet). This allows us to overcome the insoluble problem of not being able to be in the right place at the right time to sample when loading is occurring. Grab samples can be useful if the goal is to ascertain snapshots of pollutant concentrations, but this is not what we need with respect to pollutants like PCBs and mercury, for which pollutant loading is the primary concern. Other regional boards do not have PCBs TMDLs that require assessment of watershed loading. Reliance on outfall monitoring to ascertain concentration “snapshots” may be more appropriate for the pollutants of concern in Southern California, but this style of monitoring is generally not useful for PCBs or

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mercury. Because pollutant loading is the relevant metric for mercury and PCBs, POC outfall monitoring will neither yield useful information to assess compliance with existing control measures nor useful information for guiding future implementation. As explained in section C.8.f of the Fact Sheet and in the response to Baykeeper's comment 15d below, outfall sampling represents snapshots in time (of pollutant concentrations) that are not useful for understanding pollutant loading patterns. Provision C.8.e requires wet weather outfall monitoring for trash because these data are useful and relevant for assessing compliance with trash control implementation measures.

Outfall, or end-of-pipe, monitoring is not as straightforward as implied by the commenter and has limited benefits versus multiple challenges. Outfall monitoring provides an answer to the question, "are pollutants present in the stormwater flowing from the outfall?" The answer to this question is usually "yes," but that generally does not tell you what the impacts from the outfall are on receiving waters or whether the sample is representative of either water quality in receiving waters or of all of the many outfalls that were not sampled. There are perhaps up to 500 outfalls discharging directly to the Bay and thousands discharging into creeks. A stormwater monitoring program focused primarily on outfall monitoring suffers from several significant drawbacks and is not a sound strategy for assessing compliance with RWLs.

The first drawback stems from the fact that Permittee monitoring capacity is finite and Permittee field crews cannot be everywhere at all times. Therefore, choices must be made as to which of the thousands of stormwater outfalls can be feasibly monitored and when. There are also logistical challenges of mobilizing field crews during storm events so that the personnel are present at the right place and time to sample the discharge. For sediment-bound pollutants, particularly in small watersheds, it is not trivial to make sure that monitoring takes place when the highest pollutant loading is taking place.

The second drawback is that the value of data obtained will be uncertain. Allowing, for sake of argument, that the above-referenced logistical challenges can be overcome, the data one will obtain will necessarily be from a subset of all possible outfalls. Because of the spatial and temporal variability of pollutants in stormwater, one will not be certain that these data are spatially and temporally representative of all outfalls, and one will not be certain that the sampling was conducted at the right time to capture the peak concentrations.

A third drawback is that the data collected will tell you what is already understood. Again, allowing for the sake of argument that enough care is taken in the sampling design to obtain a reasonably representative sample, the value of the obtained information will be modest. As noted above, the results are likely to show that the stormwater flowing out of the outfalls contains pollutants like pesticides, PCBs, mercury, CECs, trash and other urban contaminants. We know this already. In the end, with quite a lot of effort and expense, one will demonstrate what is already generally understood. And it will generally not tell you the impacts of the discharge on receiving waters (water quality objectives and RWLs apply in receiving waters, not at the outfall).

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Finally, there is a more significant drawback. These outfall data are only going to be marginally useful in finding sources of pollutants in watersheds, and they will be almost useless in assessing the performance of control measures (like LID). They are not useful for finding source areas for three reasons. First, the outfall data only provide information on the sampled watersheds, and this is an inefficient way to approach source area identification. Second, the water flowing from the outfall will be a combination of water from the contaminated and *uncontaminated* portions of the catchment, and the dilution from the “cleaner” water will likely obscure the signature of the source area. Last, the complex source release characteristics of sediment-bound contaminants make it very easy to miss the pulse from the contaminated portion of the catchment, which may only be released during periods of intense precipitation. These outfall data are likewise not useful for assessing the performance of LID control measures because the outfalls are often too far downstream from the control measures to provide reliable information on the impact of the LID facility (again, dilution by other water not flowing through the LID facility). In short, an outfall-centric approach will provide an affirmative answer to the question of whether there are pollutants in outfalls, but it will not yield useful data for assessing performance of control measures or designing or evaluating strategies to take action to control these pollutants.

The Tentative Order’s monitoring program does not suffer from these significant drawbacks and provides better oversight than a program focused primarily on outfall monitoring. To this end, the Tentative Order requires a suite of representative monitoring in both the receiving water, stormwater outfalls, in watersheds, and for assessing control measure facility performance. There are receiving water monitoring in the Bay (through RMP) and in creeks (for pesticides, POCs, toxicity). The Tentative Order also requires monitoring specifically to assess the performance of LID facilities and requires targeted monitoring at outfalls and upstream in order to assess the efficacy of trash control measures. The Tentative Order’s representative monitoring program will provide more information than could be obtained through an outfall-centric approach because it is designed to address information needs associated with managing pollutants in urban runoff rather than just collecting monitoring at outfalls in the hope that these outfall data can fulfill the existing information needs.

Comment: *During the term of MRP 2, Baykeeper collected stormwater samples at MS4 outfalls and receiving waters in San Jose, Sunnyvale, and Mountain View. Between February 2014 and March 2014, Baykeeper collected end of pipe stormwater samples and receiving water samples at two locations (one at Coyote Creek and one at the Guadalupe River), on two sampling dates. This sampling program took 53 staff hours (split between two staff) and approximately \$4,000 in hard costs for laboratory supplies, laboratory analyses (total coliform, fecal coliform, and enterococci), and travel expenses. Between November 2017 and February 2019, Baykeeper collected end of pipe stormwater samples at six locations and receiving water samples at nine locations (five at Stevens Creek, one at Calabazas Creek, and three at Sunnyvale East Channel), on nine sampling dates over two reporting years. This sampling program took 350 staff*

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hours (split between two staff) and approximately \$40,600 in hard costs for laboratory supplies, laboratory analyses, and travel expenses. End-of-pipe sampling by Permittees will have significant economies over Baykeeper's program, and represents a small percentage of overall compliance costs. Again, representative sampling is cost effective and feasible.

Response: The two types of sampling cited in the comment (end-of-pipe and receiving water samples) can be useful components of a stormwater monitoring program. However, the costs incurred for this sampling dramatically understate the cost of this sampling because of the limited analyte list. More importantly, the information value of this type of sampling is quite limited.

The only laboratory analyses performed in the work described in the comment were for total coliforms, fecal coliforms, and *enterococci*. Adding just two additional POC analytes, low level mercury in water and PCBs congeners would add nearly \$500 to the cost per sample according to the rates paid in the Water Board's laboratory contract. Additionally, the sampling procedures for mercury and PCBs are more labor intensive than for bacteria, and much more time on site is required when sampling for additional analytes. Baykeeper performed a very simplified sampling protocol that is far different than that performed by Permittees. Next, consider the magnitude of the sampling space. There are, according to personal communication with SFEI staff, roughly 300-500 stormwater outfalls that discharge directly into the Bay and the number that discharge into creeks easily reaches into the thousands. Thus, several millions of dollars would be required to sample even a subset of these outfalls on multiple occasions.

Grab samples, which represent a concentration at a point in time, may be useful for some constituents in some circumstances. However, grab samples collected at outfalls or in receiving waters have limited usefulness relative to stormwater management.²⁴ Especially for PCBs and mercury, a single grab sample at one time or even multiple grab samples on different dates at the same location provides limited information that can be used to assess pollutant load, which is the relevant parameter for these two pollutants.

Permittees do spend considerable resources on monitoring, but this effort is distributed across several broad monitoring categories described in Provision C.8. The style of monitoring cited in the comment has limited usefulness in achieving the objectives for these other categories of monitoring. For example, these data will not help locate areas of contamination in the watersheds contributing to the sampling location. They will have limited use in assessing creek status, identifying stressors to water quality, evaluating control measures, or providing data to support watershed loading models. The style of data collection suggested in the comment is expensive and offers a generally poor

²⁴ National Research Council (NRC) 2009. "Urban Stormwater Management in the United States." USEPA (2011). District of Columbia MS4 Permit No. DC0000221 Fact Sheet.

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return on investment in terms of the information it provides relative to compliance and management information needs, as explained in the preceding response.

C.8.d – LID Monitoring. By way of background, LID Monitoring is intended to measure compliance and effectiveness of LID implementation. It will improve the understanding of the following two management questions (which are repeated in Finding C.8-6 above) related to the implementation of LID controls:

What are the pollutant removal and hydrologic benefits, such as addressing impacts associated with hydromodification, of different types of LID facilities, systems, components, and design variations, and how do they change over time?

What are the minimum levels of O&M necessary to avoid deteriorated LID facilities, systems, and components that reduce pollutant removal and hydrologic benefit performance?

The purpose of the first management question is to confirm that Permittees' LID controls are functioning as expected over time. Perhaps some design variations provide greater performance than others. The purpose is not only to compare relative performance between different types of MRP Permittee controls but also to compare their performance against the publicly-available databases of LID performance data, such as those of the International Stormwater BMP Database and SCCWRP's California BMP Effectiveness Calculator.

The purpose of the second management question is straightforward: to assess whether LID controls that receive relatively insufficient O&M perform relatively poorly compared to LID controls that receive relatively sufficient O&M, which will directly inform management actions (such as, what O&M activities to perform, and how much of it to perform how frequently).

Master Response Identifier: C.8.d-1

Comment Identifier: Part 1) of ACCWP-a9,41, SCVURPPP-89,90,92,93,94,95, SMCWPPP-143,144,146,147,148,149,212, Solano-5

Provision No.: C.8.d.i.(1)(d)

Comment: *Remove the requirement to conduct a power analysis for the LID Monitoring Plan, as there is not enough known information (e.g., the normality of the distribution, the parameters of the distribution, and acceptable error rate) available to conduct the power analysis. While this information may be known for certain parameters in datasets outside of the Bay Area, it is not clear whether those data can be extrapolated to the Bay Area. With worsening drought conditions, the number of storm events per year that produce runoff may be less than the number of samples needed to meet the desired*

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confidence and power. The coefficient of variation and acceptable error rate are extremely sensitive parameters that can impact the required number of samples by orders of magnitude. For influent and effluent sampling, it is much more difficult to detect small changes in concentration, therefore, LID sites/constituents with low removals or low influent concentrations will inherently require a larger number of samples than sites/constituents with high influent concentrations and high removals. Also remove this requirement from the Fact Sheet.

Response: To reduce the burden on the Permittees to perform the power analysis, and to comply with their request to remove it from the LID Monitoring Plans, we have removed the requirement for the Permittees to conduct a power analysis for the LID Monitoring Plans, conducted the power analysis ourselves, and modified the TO in response.

It is not true that currently there is insufficient information available with which to perform the power analysis. In the case of LID Monitoring, all that is needed is a sufficiently large dataset containing performance data (the ratio of effluent and influent) for a parameter(s) of interest, which has a normal distribution (or a distribution that is reasonably normal once transformed) if running a parametric test, but if running a nonparametric test, a normal distribution is not needed. We have access to two databases with exactly the data needed to perform power analyses to inform a monitoring schedule for LID Monitoring, which satisfy the aforementioned criteria: SCCWRP's California BMP Effectiveness Calculator (https://sccwrp.shinyapps.io/bmp_eval/) and the International Stormwater BMP Database (<https://bmpdatabase.org/get-data>).

Power analysis involves repeatedly performing student t-tests to compare the mean from a known distribution to the mean from some future data distribution. We then evaluate if we can tell the statistical difference between the known and future means at a given sample size, significance level and statistical power. Significance level is typically set at 5% and power at 80%. Significance level means the chance that differences as large as those observed could occur by chance. Since our null hypothesis is that the future data are from the same population as the existing data, this can also be understood as the probability that we would incorrectly reject the null hypothesis. The quantity 100% minus the power (100% - 80% = 20%) is the probability that we would incorrectly accept the null hypothesis. In other words, if we see differences between the existing data and the future data of a certain magnitude, those differences either indicate a real difference between the data means (i.e., they are from different populations), or the differences are due to bad luck from a non-representative sample – just by chance. Statistical significance is about being wrong about saying the means (and, hence, the distributions) are different. Power is about being wrong about saying the means are not different.

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We utilized a method from Helsel (2020)²⁵ to compute the power of a nonparametric test of differences between geometric means of two distributions. We adapted an R script (power.WMW from Chapter 13) provided on a website²⁶ providing supporting material for Helsel 2020. For more information on the method, please see Chapter 13 of Helsel 2020. The existing data were for total copper (combined data from SCCWRP California BMP Effectiveness Tracker and the International Stormwater BMP Database), TSS (International Stormwater BMP Database), TSS (SCCWRP California BMP Effectiveness Calculator) and Dissolved Zinc (SCCWRP California BMP Effectiveness Calculator). No data filtering was performed on these data (which possibly include outliers and instances where input:output is < 1). No transformations of the data were required because the nonparametric method does not require the data to be normally distributed.

The results of the power analysis support a reduction in the number of sample events in Table 8.d.2, from approximately 30-35 sample events per County stormwater program (over the course of the 5-year Permit term) (excluding the Solano Permittees) to approximately 25-30 sample events per County stormwater program.

The specific changes to the total Permit term sample events are as follows. For Alameda Permittees, the total has been reduced from 36 to 25; for Contra Costa Permittees, the total has been reduced from 30 to 25; for San Mateo Permittees, the total has been reduced from 28 to 25, for Santa Clara Permittees, the total has been reduced from 36 to 25. For Solano Permittees, the total has not been reduced from 12, because such a reduction is not supported by the power analysis, though the Solano Permittees' number of sample events is still less than half that of each of the others'. However, as we explain starting in the next paragraph, we have additionally reduced the annual minimum sample events for the Solano Permittees from 2 to 1, to allow for additional flexibility, efficiencies and cost savings.

Correspondingly, the annual minimum sample events in Table 8.d.2 have also been reduced. In the original Tentative Order, the annual minimum sample events were the quotient of the total Permit term minimum sample events divided by the length of the Permit term. Therefore, upon reducing the total Permit term minimum sample events, we also reduced the annual minimum sample events. We further reduced the annual minimum sample events, to provide greater flexibility, efficiencies and cost savings, as well as logistical changes should some water years have more storm events to sample than others.

The annual minimum sample events have been reduced as follows. For Alameda (7 annual minimum sample events), Contra Costa (6), San Mateo (5), and Santa Clara Permittees (7), they were first proportionally reduced to 5 (because of the change to the total number of permit term sample events), then reduced by an additional 2 (from 5 to

²⁵ Helsel, D.R., Hirsch, R.M., Ryberg, K.R., Archfield, S.A., and Gilroy, E.J., 2020, Statistical methods in water resources: U.S. Geological Survey Techniques and Methods, book 4, chap. A3, 458 p., <https://doi.org/10.3133/tm4a3>.

²⁶ <https://www.sciencebase.gov/catalog/item/5bf30260e4b045bfcae0c205>

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3) to provide greater flexibility as discussed above. Finally, as indicated above, even though the total Permit term minimum number of sample events for the Solano Permittees has not changed, we have reduced the annual minimum sample events from 2 to 1, once again, to provide additional flexibility as discussed above.

And briefly, we note that we have added language allowing Permittees to make up sample events in the subsequent water year, if there aren't enough storms to sample in a given water year.

Here is an explanation of the nonparametric power analyses and the derived changes to Table 8.d.2. First, we briefly explain the nonparametric power analysis, and apply it to this specific use case. The goal is essentially to run a series of t-tests to estimate how many sample events of the Permittees' LID BMPs during MRP 3 would need to be collected to determine whether such BMPs – and to the extent that those BMPs are a representative sample of the population of LID BMPs in the region, then this may be extrapolated to that regional population – belong (statistically) to the data population represented by the existing data in the databases of the International Stormwater BMP Database and the SCCWRP California BMP Effectiveness calculator.

The null hypothesis is that the geomean of the Permittees' sample data is the same as the geomean of the population of the databases, and the alternative hypothesis is the converse. A significance level and power level are specified, which are recommended as 5% and 80%, respectively, by the International Stormwater BMP Database's 2009 monitoring guidance document.²⁷ The significance level is the probability (5%) of incorrectly rejecting the null hypothesis, and 100% minus the power level of 80% is the probability that a significant change will be overlooked (i.e., 20% chance that the null hypothesis will not be rejected when it should have been).

Then, we explore how many sample events are needed to reject the null hypothesis for a given magnitude of difference in the geomeans, for a given power level. We try out different combinations of a sample event size and the difference to detect.

For each dataset that is tested, we calculate the geomean of the performance ratios (input:output) of each sample event, which consists of a flow-weighted (or time-weighted) composite event mean concentration (EMC) taken simultaneously at an inlet and outlet of a particular bioretention cell, for a particular storm event.

Flow- or time-weighted composite EMCs involve the collection of a sample aliquot at a certain increment of flow passing through the monitored orifice, or at a certain increment of time, which is then added to a storage container to form a single composite sample. These are explained in greater detail, including different types of flow-weighted composite EMC methodologies (e.g., volume proportional to flow rate, volume proportional to flow volume increment, and time proportional to flow volume increment), in the International Stormwater BMP Database's 2009 monitoring guidance document.²⁷

²⁷

<https://static1.squarespace.com/static/5f8dbde10268ab224c895ad7/t/604926dae8a36b0ee128f8ac/1615406817379/2009MonitoringManualSingleFile.pdf>

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These are the sample collection methodologies used for the data in the two aforementioned databases, and they are as well what the Permittees will use in MRP 3.

Once we have the distribution (principally, the geomean) of the performance ratios of each sample event in a dataset, we test for the differences between that ratio of the geometric mean of the database data to the geometric mean of the future to-be-collected data, where each such geometric mean is the geometric mean of the ratios of input:output ratios for each sample event.

For each number of total sample events to be collected over the five-year permit term (e.g., 10, 15, 20, 25...), this produces a range at 80% power, which if the geomean of future sample events falls within that range, would confirm the null hypothesis. The upper and lower bounds of the range are the ratios of the future geomean (of input:output ratios) to the database geomean (of input:output ratios); geomeans closer to the upper bound represent overperformance relative to the distribution of the database, while geomeans closer to the lower bound represent underperformance relative to the distribution of the database. In the center of the range, where the ratio of future geomean to database geomean = 1, their performance is identical. Each range represents a given number of sample events, and the range constricts incrementally as the number of sample events increases. What that translates to is that, as we increase the number of sample events, we are less likely to incorrectly affirm the null hypothesis, though there are diminishing returns, which we'll discuss now.

It is possible to transform the upper and lower bounds of the geomeans to a percent removal using the formula $(in:ratio - 1)/in:out\ ratio$. However, those percent removals would be approximations, while the geomean range is obtained directly from the power analysis.

The next step in power analysis involves assessing diminishing returns in the constriction of the geomean ranges with increasing numbers of sample events. For example, whereas an increase in sample events from N=10 to N=100 would correspond with a very large constriction in the lower and upper bounds of the geomean ratio (performance) range, an increase in sample events from N=100 to N=110 would correspond with a dramatically lesser constriction.

For the TSS, Copper and Zinc data we tested, the sweet spot for the number of water quality sample events to be collected during the upcoming Permit term is N=30. However, N=25 has a significant but relatively acceptable consequence with respect to the size of the geomean range (particularly for the TSS data from the International Stormwater BMP Database) relative to N=30, and therefore we have used it as a modest reduction in effort for the ACCWP, CCCWP, SCVURPPP, and SMCWPPP Permittees. Above N=30, successive constrictions in the geomean range suffer increasingly dramatic diminishing returns. Below N=25, the opposite is true because the geomean range becomes much larger, and therefore the efficacy and utility of the monitoring program drops off dramatically.

The tabular data and visualizations of the data, which led to these conclusions, are provided in the Fact Sheet. Diminishing returns can be visualized as the point at which the slope of the rate of change in geomean range (x-axis = number of sample events; y-

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axis = change in geomean range), starts to flatten out as it approaches a horizontal asymptote.

Master Response Identifier: C.8.d-2

Comment Identifier: Part 2) of ACCWP-a9,41, SCVURPPP-89,90,92,93,94,95, SMCWPPP-143,144,146,147,148,149,212, Solano-5

Provision No.: C.8.d.i.(1)(d)

Comment: *Power analysis can be a useful tool to estimate sample sizes needed for detecting trends over time in long-term monitoring programs of many years (10 or 20 years). However, the LID Monitoring studies conducted during MRP 3.0 are likely too short (less than five years) to detect trends, especially considering that precipitation conditions during the permit term may not represent long-term conditions. Therefore, power analysis is not likely to help the Programs develop useful LID Monitoring Plans.*

Response: It is incorrect that not enough data can be collected in a 5-year permit term to reject/confirm the hypothesis that the Permittees' LID BMPs (assuming they are generally well-represented by the sites that Permittees choose) belong to the same distribution as the population of LID BMPs used in the power analysis (i.e., those that contributed data to the SCCWRP database and the International Stormwater BMP Database. By definition, the exercise of conducting a power analysis will inform how many samples need to be collected to reject/confirm the hypothesis, and then that number of samples can be scheduled to occur during the 5-year permit term. Particularly given that we can now perform non-parametric power analysis, meaning it is not mandatory to have a dataset with a Normal distribution.^{28,29} And in our best professional judgement, the number of sample events suggested by the power analysis (see above) is reasonable and doable during the upcoming Permit term.

Master Response Identifier: C.8.d-3

Comment Identifier: Part 4) of ACCWP-a9,41, SCVURPPP-89,90,92,93,94,95, SMCWPPP-143,144,146,147,148,149,212, Solano-5

Provision No.: C.8.d.i.(1)(d)

Comment: *Running a power analysis requires technical expertise and existing data on the spatial and temporal variance in the system. Because the LID facilities likely to be monitored by the Programs are recently built, it is extremely unlikely that we know any of the input values needed to run a power analysis. The many assumptions required will compromise the power analysis results.*

²⁸ <https://www.sciencebase.gov/catalog/item/5bf30260e4b045bfcae0c205>

²⁹ <https://pubs.er.usgs.gov/publication/tm4A3>

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Response: This is contrary to our understanding. We (and we believe the Permittees as well) have the technical expertise necessary to perform power analysis. And as we describe above, we have all of the inputs that are necessary. The fact that the LID facilities likely to be monitored by the Permittees will be relatively new is completely irrelevant; the data that is used in the power analyses is from the LID BMPs in the aforementioned databases. The comment that the many assumptions required will compromise the power analysis results, is incorrect. As we've explained above, we do not need existing data on the spatial and temporal variance of performance for the LID BMPs that the Permittees will monitor during MRP 3, we need that only for the LID BMPs whose data in the aforementioned databases we are using - we do have all of the information that is necessary for the data in those databases.

Furthermore, the ability to perform nonparametric power analysis makes it even more convenient, because the data do not need to have a normal distribution; see the two references cited in Master Response Identifier: C.8.d-2.

Master Response Identifier: C.8.d-4

Comment Identifier: Part 1) of ACCWP-a6,a7, CCCWP-38,41, SCVURPPP-5,97, SMCWPPP-18,151, Solano-5

Provision No.: C.8

Comment: *The monitoring requirements in the Tentative Order, collectively, will be significantly more expensive to implement than the monitoring requirements in MRP 2. The pandemic's fiscal impacts on Permittees remain. Therefore, revise the Tentative Order, as described in more detail below and in Attachment 2, to allow for more cost saving measures and to reduce the number of required sampling events so that the annual monitoring costs under MRP 3 are similar to annual monitoring costs in MRP 2 and can reasonably and safely be completed. The Permittees thought the Water Board's goal was to keep MRP 3 monitoring cost-neutral compared to MRP 2.*

Response: We have considered costs throughout the Permit development process, strove to maintain costs that are roughly commensurate with those in MRP 2, and have incorporated cost saving measures into the Tentative Order.

To the extent there are cost increases in the aggregate, the monitoring programs (and changes to the monitoring programs) associated with those cost increases are justified as being necessary to demonstrate compliance with Permit requirements, as informing decisions that have greater costs than the monitoring, and/or otherwise as corresponding to a minimum level of effort which is necessary to answer the specified Management Questions.

However, as expressed above, we have made many adjustments to the Tentative Order to accommodate concerns about cost and level of effort. For example, we have removed the requirement to perform a power analysis from both LID monitoring and trash monitoring. We've also eliminated the use of indirect methods from trash

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monitoring, which according to the Permittees' own estimation will greatly reduce the cost to implement Trash Monitoring. While we've added LID monitoring, the addition of that new cost and level of effort we believe is commensurate with the removal of Creek Status Monitoring and SSID Projects.

Furthermore, based on power analysis that Water Board staff performed using data from the International Stormwater BMP Database and from the SCCWRP California BMP Effectiveness Calculator, we have reduced the number of sample events in the LID Monitoring table, though that itself is offset by the increase in level of effort associated with each digit/integer in that table by clarifying that those are sample events not individual grab samples, and clarifying that sampling of the inlet and outlet cannot be counted as separate samples; that is because the datapoint is the composited EMC of both inlet and outlet, which gives performance (percent removal).

Please also see the response to the following combined comment in the Response to Comments table, regarding changes to the number of LID Monitoring sample events resulting from that power analysis:

ACCWP-a9,41
SCVURPPP-89,90,92,93,94,95
SMCWPPP-143,144,146,147,148,149,212
Solano-5

We have made additional reductions in the trash monitoring level of effort, by delaying outfall monitoring by a year, delaying in-stream monitoring by 2 years, dislocating those two components (which increases flexibility and may reduce costs further), and reducing the number of in-stream monitoring events down by 1, among other changes.

Please also see the response to the following combined comment in the Response to Comments table, regarding these changes to Trash Monitoring:

ACCWP-a8
SMCWPPP-14,15,165,167,171
San Jose-27
SCVURPPP-108,110

Please also see the response and proposed revisions to the following comment in the Response to Comments table, regarding changes to Trash Monitoring: SMCWPPP-168.

Master Response Identifier: C.8.d-5

Comment Identifier: Part 6) of ACCWP-a9,41, SCVURPPP-89,90,92,93,94,95, SMCWPPP-143,144,146,147,148,149,212, Solano-5

Provision No.: C.8.d.i.(1)(d)

Comment: *Use this permit term to develop the basis for monitoring and understand the variance of the monitoring results. Rather than basing the number of samples solely on*

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a power analysis, the Regional Board should consider defining qualifying storm event criteria for sampling and then allow the permittees to consider the number of qualifying storm events that have occurred based on the rainfall record.

Response: This Permit term *will* be used to develop the basis for monitoring and understand the variance of the monitoring results, and adjustments may be made in subsequent Permit terms as the LID Monitoring program is carried forward. However, we can base the number of sample events in Table 8.d.2 on the power analysis that is described above.

We disagree with the suggestion to, rather than basing the number of samples on a power analysis, defining qualifying storm event criteria for sampling and then allowing the Permittees to consider the number of qualifying storm events that have occurred based on the rainfall record.

The power analysis provides a scientific and statistical basis for the number of sample events. It tells us how many samples need to be collected in order to be able to determine whether or not the distribution of the LID BMPs which the Permittees will monitor in MRP 3 (which in theory are a representative subset of the population of LID BMPs in the Permittees' jurisdictions) have a performance distribution that it is reasonable to conclude belongs to the same performance distribution as the dataset populations of the International Stormwater BMP Database and the SCCWRP California BMP Effectiveness Calculator.

This is the standard/defensible/accepted practice for establishing the number of sample events in a monitoring program.

Master Response Identifier: C.8.d-6

Comment Identifier: ACCWP-a9, SCVURPPP-7,101, SMCWPPP-15,16,155,211

Provision No.: C.8.d.iv & C.8.e.iii

Comment: *It is impractical to include annual minimums, because in any particular year there may not be enough storm events to sample. Remove that requirement and allow the Permittees to collect the total required number of samples over the course of the Permit term, and also reduce the number of samples that Permittees are required to collect "as long as the overall level-of-effort in the final Monitoring Plan is equivalent to the level-of-effort included in this Provision." Also remove this from the Fact Sheet.*

Response: We do not agree with the request to completely remove the requirement for annual minimum sample collection, for several reasons. First, a requirement for annual minimum sample events ensures that Permittees make progress towards completing the monitoring requirements during every year of the Permit term. Second, in the event that the 5-year Permit term is administratively extended, no monitoring would be required during those subsequent years. Third, we want to avoid Permittees grouping sample events in time (rather than spreading them out evenly over the course of the

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Permit term) to such an extent that the quality of data produced by such a LID Monitoring program would be significantly lower.

However, we do agree that climate may hinder Permittees' ability to perform all required sample events in any particular water year. Therefore, we have revised the language for both C.8.d and C.8.e so that if there are not enough storm events to sample in a given water year, Permittees may certify that that is the case in their UCMR, and then collect the missed samples in the subsequent water year.

And as discussed in the response to the following combined comment in the Response to Comments table, we have also reduced the required minimum number of annual sample events, to provide additional flexibility and potential cost savings:

ACCWP-a9,41
SCVURPPP-89,90,92,93,94,95
SMCWPPP-143,144,146,147,148,149,212
Solano-5

The annual minimum sample events specified in Table 8.d.2 has been adjusted, based on all of these factors.

Master Response Identifier: C.8.d-7

Comment Identifier: ACCWP-a7,40, CCCWP-43, San Jose-25, SCVURPPP-7,98,105, SMCWPPP-14,19,152,160,213

Provision No.: C.8.d.ii & C.8.d.vi

Comment: *Not enough time is allowed for the development of the LID Monitoring Plans. Delay the submittal of the draft LID Monitoring Plans to the TAG, and of the final LID Monitoring Plans to the Water Board, each by 4 months. SMCWPPP-213 requests that any changes to these deadlines be reflected in the Fact Sheet.*

Response: We agree with comments requesting to delay the submittal dates for the draft and final LID Monitoring Plans. However, the requested delays would allow Water Board staff only 3 months, between July 1, 2023, and September 30, 2023, to review the 5 final LID Monitoring Plans, and then approve or conditionally approve each of them. If any of the final LID Monitoring Plans are conditionally approved, such that they require significant changes before they are implemented, the Permittees would have very limited time to revise the Plans and accordingly adjust their planned implementation of the Plans. Since Permittees will be required to start monitoring on October 1, 2023 (the start of the 2024 water year), they might have as little as a few weeks to revise and adjust before they must start monitoring, depending on how quickly Water Board staff are able to review and approve/conditionally-approve the final LID Monitoring Plans.

Therefore, we have delayed the submittal of the draft LID Monitoring Plans to the TAG, and of the final LID Monitoring Plans to the Water Board, each by 2 months. That is, the submittal date of the draft LID Monitoring Plans to the TAG will be delayed from January

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1, 2023, to March 1, 2023, and the submittal date of the final LID Monitoring Plans to the Water Board will be delayed from March 1, 2023, to May 1, 2023. This is a reasonable compromise that will afford Permittees sufficient extra time to develop their draft and final LID Monitoring Plans, while ensuring that Water Board staff have sufficient time to review and approve/conditionally-approve those final LID Monitoring Plans, and finally, ensuring Permittees have sufficient time to incorporate any changes required in the conditional approvals (if any) of final LID Monitoring Plans.

Master Response Identifier: C.8.d-8

Comment Identifier: Part 1) of ACCWP-a7,43, CCCWP-44, Contech-4, SCVURPPP-7,102,103, SMCWPPP-17,156,157,210, Solano-6

Provision No.: C.8.d.iv

Comment: *The list of parameters in Table 8.d.2 will make each sample expensive to analyze, some parameters may not be appropriate for answering certain management/monitoring questions, and some parameters don't have standard laboratory and field methods (e.g., PFAS, microplastics, 6PPD-quinone). Analysis of PCBs may be best suited for studies evaluating GSI facilities located in old industrial areas, but not in areas with little to no PCBs in runoff. Analysis of PFAS may be appropriate for studies evaluating infiltration of treated stormwater to the underlying aquifer, but not in studies focusing on the long-term effect of variable operation and maintenance frequencies. Revise the list so that only solids (e.g., TSS or SSC) are a required parameter, and all other parameters are optional and should be sampled depending on which management question is being investigated at a particular monitoring site. TSS could be used as a cost-efficient proxy for other pollutants.*

Response: We agree generally that not all of the parameters in Table 8.d.2 should be required for each site. We have revised the table, into required and optional parameters. Required parameters may no longer be excluded from the LID Monitoring Plans, but Permittees do not have to justify the exclusion of optional parameters. Required parameters are: Total Hg, Total PCBs, TSS, PFAS, TPH, Total and Dissolved Copper, Flow, Total Hardness, and pH. Optional parameters are: Other emerging contaminants (e.g., microplastics) and other ancillary parameters (e.g., nutrients).

PCBs are present in all stormwater runoff, and although their levels are highest in old industrial areas, wherein focused source and possible treatment controls are required, control of PCBs in other drainage areas is also expected and required through implementation of green stormwater infrastructure (GSI) facilities including LID controls over time. Permittees have already claimed reductions of PCBs loads through use of GSI and LID to meet MRP 2 PCBs load reduction requirements. There is ample cause for evaluating and verifying effectiveness of GSI and LID to control PCBs.

There are growing concerns with potential adverse impacts of PFAS. These concerns include adverse impacts to aquatic life and humans due to their presence in surface waters in addition to concerns with their presence in aquifers that may be sources of drinking water. Field and laboratory methods are currently available and used for PFAS

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compounds of most concern, e.g., PFOA/PFOS. Given the likely widespread presence of PFAS in runoff, there is also ample cause for evaluating and verifying effectiveness of GSI and LID to control PFAS.

There are also ample concerns with the presence of mercury (Hg), hydrocarbons (TPH), and heavy metals (copper) in runoff and ample cause for evaluating and verifying effectiveness of GSI and LID to control them and pH and hardness level may affect treatability of pollutants.

While TSS could be a proxy for other pollutants in some settings, the relationship between TSS and other pollutants that bind to particles is variable and there will likely be dissolved forms of those pollutants. Also, the revised list of required parameters represents a suite of key pollutants of concern in runoff that will inform and justify the representativeness of studied LID systems and extrapolation of the studies' results to other similar systems in similar and possibly other settings.

Master Response Identifier: C.8.d-9

Comment Identifier: Part 3) of ACCWP-a7,43, CCCWP-44, Contech-4, SCVURPPP-7,102,103, SMCWPPP-17,156,157,210, Solano-6

Provision No.: C.8.d.iv

Comment: *Not all monitoring designs will require sampling of flowing water. For example, studies that assess O&M as well as performance through pollutant accumulation in media do not require flow monitoring. Flow should be removed from the list of parameters and the following footnote should be added to address flow and flow modeling: "All studies shall include the collection of discrete and/or continuous flow and/or volume measurements to adequately address the applicable Management Question(s) identified in the Monitoring Plan(s). A combination of modeling and monitoring may be used to assess the hydrology of GSI facilities."*

Response: We disagree with the suggestion to allow flow modeling in lieu of collecting flow data. LID BMPs serve two primary purposes (among other purposes such as mitigation of urban heat island effect), attenuating stormwater pollutants and reducing flows. Flow must be sampled rather than modeled because the assumptions made when modeling hydrology (and the hydraulics of a LID BMP) are precisely what we are interested in investigating by sampling flow data.

Assumptions include those about preferential paths and the infiltration of water through the media, the infiltration rate of the media and of the underlying native soil, the design and construction of the system, the operation and maintenance of the system, and so on.

Of course, Permittees are encouraged to perform whatever flow modeling they deem necessary to help them choose sites and to evaluate collected data, but flow modeling cannot replace the utility of flow sampling or otherwise offset required flow sampling.

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Since the required sample methodology is flow-weighted (or time-weighted) composite EMC via automated sampler, that monitoring system incorporates the measurement and recording of flow data. So, flow data will be collected through the use of the prescribed methodology.

C.8.e – Trash Monitoring. By way of background, trash monitoring at MS4 outfalls or adjacent receiving waters provides a viable method to determine whether control actions implemented by Permittees (full trash capture systems or the implementation of other management actions equivalent to full trash capture) have been effective in preventing trash from discharging to receiving waters. Additionally, trash monitoring can be used to determine whether additional actions may be necessary and associated with sources within a Permittee's jurisdiction. Trash monitoring can also inform whether direct (non-MS4) discharges of trash are causing and/or contributing to adverse trash impacts in the receiving water(s).

The purpose of this trash monitoring is to answer the following management questions and monitoring questions:

Management Questions

- Have Permittees' trash control actions effectively prevented trash within Permittees' jurisdiction from discharging into receiving waters?
- Are discharges of trash from areas within Trash Management Areas controlled to a low trash generation level causing and/or contributing to adverse trash impacts in receiving waters?

Monitoring Questions

- What is the trash condition and approximate level of trash (volume, type, and size) within and discharging into receiving waters in areas that receive MS4 runoff controlled to a low trash generation via the installation of full trash capture devices, or the implementation of other trash management actions equivalent to full trash capture systems?
- Does the level of trash in the receiving water correlate strongly with the conditions of the tributary drainage area of the MS4?

Master Response Identifier: C.8.e-1

Comment Identifier: CCCWP-39,45, Oakland-18, SCVURPPP-6,7,106, SMCWPPP-14,15,161,174, ACCWP-a8

Provision No.: C.8.e – Trash Monitoring.

Comment: *The estimated cost associated with implementation of the indirect methods are unreasonable, are significantly greater than those associated with the MRP 2 trash*

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monitoring pilot project, and would effectively make Trash Monitoring the highest monitoring priority for MRP 3, which does not align with the Permittees' desires. For example, ACCWP-a8 would like POCs Monitoring to be the highest monitoring priority, followed by LID Monitoring, followed by Trash Monitoring. SCVURPPP-7 asks that: the trash monitoring requirements be reconsidered and significantly reduced to a scale of cost similar to the current permit or lower.

Some comments also say that "there is no reduction in monitoring costs elsewhere in C.8 to offset the increase [to trash monitoring]."

Response: As explained in our response to the comments on C.8.e.iii.(2), the 12:1 ratio specified in that Provision was based on Water Board staff's best professional judgment (and the data available to us) about the cost (or, level of effort) associated the MRP 2 trash monitoring pilot project. The Permittees' high estimated implementation cost for C.8.e is based on the assumed use of the indirect methods relative to the MRP 2 trash monitoring pilot project, rather than the direct methods.

As we are removing the potential use of the indirect methods in part in response to the Permittees' concerns that the use of the indirect methods at the 12:1 ratio would be too costly, and as both Water Board Staff and the Permittees estimate that the use of the direct methods in MRP 3 will be roughly commensurate with the MRP 2 pilot project, the concern raised by this comment is no longer relevant. As the Permittees have attested in their comments, implementation of the direct trash monitoring methods will result in significantly reduced costs and overall level of effort.

Regarding monitoring priorities, as we approach the final compliance benchmark (100% Low trash generation and no adverse impact to receiving waters), it is imperative that we establish a program to evaluate the effectiveness of Full Trash Capture Devices and Full Trash Capture Equivalent Actions, in terms of loading from MS4s (where those controls are implemented) to receiving waters as well as the conditions in receiving waters as a result of that loading, and this is what the program described in C.8.e will investigate.

We disagree that certain subprovisions in C.8 should be considered to be a greater priority than others, however, C.8.e Trash Monitoring is certainly a high monitoring priority.

Regarding the comment that there is no reduction in monitoring costs elsewhere to offset the increase to trash monitoring, again, the exclusive use of direct trash monitoring methods will result in trash monitoring costs roughly commensurate to the MRP 2 trash monitoring pilot project. Furthermore, we estimate that the removal of Creek Status Monitoring and SSID Projects is roughly balanced by the addition of LID Monitoring and the changes to Trash Monitoring.

Please also see the response to the following combined comment in the Response to Comments table, regarding general concerns about C.8 implementation costs:

ACCWP-a6,a7
CCCWP-38,41
SCVURPPP-5,97

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SMCWPPP-18,151
Solano-5

Master Response Identifier: C.8.e-2

Comment Identifier: ACCWP-a8,44, CCCWP-38,39,40,41,45, Oakland-18, SCVURPPP-5,6,7,109, SMCWPPP-14,15,16,166,168,173,174,175,176,177, San Jose-27, Solano-7

Provision No.: C.8.e.iii.(2)

Comment: *Eliminate (or revise) Provision C.8.e.iii.(2), so that if Permittees use indirect trash monitoring methods, they have the same numbers of sites and monitoring events as if they were to use direct methods. Permittees will likely mostly use indirect methods because it will be challenging to find outfalls at which they can use direct methods, because many outfalls will be unsafe and inaccessible to monitor directly, and because the Permittees won't have enough time to procure the necessary permits for direct methods (some comments such as CCCWP-45 and SCVURPPP-109 posit that it may not even be possible, regardless of timeline, to get permits for certain end-of-pipe or in-stream devices). Another reason for eliminating Provision C.8.e.iii.(2) is that, if Permittees mostly use indirect methods, implementation costs will be much higher because of the 12:1 site ratio, and so eliminating Provision C.8.e.iii.(2) will make the implementation of indirect methods roughly equivalent to the implementation of direct methods, and will overall reduce the MRP 3 monitoring costs to a level closer to the MRP 2 monitoring costs. There may not be enough municipal and/or contracted staff available to sample all of the sites and storm events required by Provision C.8.e.iii.(2), if indirect methods are used. There may not be enough qualifying sites at which to use the indirect methods, if Provision C.8.e.iii.(2) is maintained as-is. The Fact Sheet does not provide sufficient justification for the 12:1 site ratio. SCVURPPP-109 and SMCWPPP-166 request the inclusion of language that acknowledges the need for permits to install in-stream monitoring devices and/or to retrofit outfalls for the installation of netting devices, and should allow for delays in monitoring implementation as a result.*

Response: As explained in the Fact Sheet, the indirect sampling methods produce data which is less reliable and informative compared to data produced by the direct sampling methods. This is because they sample on-land rather than within the receiving water. Though some undetermined but significant portion of the trash loading will be caught by vegetation and along stream banks (etc.), that portion is likely to be in the minority compared to the portion of trash loading that is not caught (i.e., that is transported by the current downstream). Therefore, such methods are necessarily an approximation of trash loading in the receiving water, and produce data of lower quality than methods that directly sample the receiving water and/or the MS4, if those on-land methods are relied on for indirect sampling of the receiving water.

The 12:1 ratio of indirectly-monitored sites to directly-monitored sites was based on Water Board staff's best judgment of equivalent effort relative to the MRP 2 trash monitoring pilot project, which level of effort the Permittees themselves determined was

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reasonable and desirable to answer certain management and monitoring questions at the time. Water Board staff had to make certain assumptions in the development of the 12:1 ratio, because we did not have all the necessary data from the Permittees on the costs associated with that pilot project. In response to this expressed concern that the implementation of the indirect methods would essentially be prohibitively expensive, we have removed them from C.8.e as a substitute for direct sampling of MS4 outfalls and receiving waters (in-stream). Along with that, we have removed C.8.e.iii.(2) from the Tentative Order, which required the 12:1 ratio for indirect monitoring methods, as discussed above. However, as explained in response to SCVURPPP-107 SMCWPPP-164, we are keeping the on-land methods, not as a required component and not as an indirect replacement for the direct monitoring of MS4 outfalls and receiving waters, but to provide a synoptic view of MS4 outfall and in-stream sites, by assessing nearby on-land conditions. See Provision C.8.e.ii.(3).

In our best professional judgment, the direct methods will – the on-land methods very like would not, to the extent they are used as indirect proxies for the direct methods – reliably answer the Management Questions and Monitoring Questions. Because the indirect methods are so imprecise (and represent such an approximation), their use might falsely confirm the null hypothesis that trash loading in receiving waters below outfalls is equivalent to trash loading in receiving waters above outfalls, for such outfalls receiving stormwater runoff from MS4 service areas controlled to the Low trash generation level. Please see the response to the following combined comment for more information on why we think the direct methods will answer the Management and Monitoring Questions:

ACCWP-a8
SMCWPPP-14,15,165,167,171
San Jose-27
SCVURPPP-108,110

By providing the Permittees an additional year to develop the Trash Monitoring Plan, and delaying the inception of trash monitoring by that same additional year, the Permittees will have the time necessary to find outfall sites at which they can implement the direct methods and secure all necessary permits. In fact, among the population of existing trash control devices that are in-stream, at the ends of MS4 outfall pipes, and in-line (see examples provided in Fact Sheet), it may be that some can be used as-is for Provision C.8.e trash monitoring, while others may require modifications. Regardless, with an additional year (a total of 15 months between the effective date of MRP 3, July 1, 2022, and the revised start date of Trash Monitoring, October 1, 2023), the Santa Clara and Alameda Permittees will be able to each locate 3 sites at which they can safely implement direct trash monitoring methods; the San Mateo and Contra Costa Permittees will be able to each locate 2 sites at which they can safely implement direct trash monitoring methods; and the Solano Permittees will be able to locate 1 site at which they can safely implement direct trash monitoring methods. This is a reasonable and doable assignment. Also regarding safety, natural channels are likely to have lesser flow rates as compared to hardened channels experiencing the same runoff conditions, and so Permittees may prefer sampling natural channels, though it may be more

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challenging to permit in-stream devices for natural channels than for hardened channels.

As noted previously, for in-stream monitoring we are allowing the Permittees to implement the methods piloted by 5 Gyres and summarized in their final report,³⁰ which do not screen the full depth/width of the channel, which means Permittees will need to extrapolate the loading in the sample to the rest of the channel cross section.

Extrapolation may be more appropriate or accurate for channels experiencing supercritical flow (which are likely to have good mixing of trash because of the higher turbulence), which is more likely for a hardened channel. Conversely, the opposite is likely the case for natural channels. Natural channels are more likely to have subcritical flows (less turbulence) which means there will be less mixing of trash, more concentration of trash in the thalweg, and samples will be less easily extrapolated to the rest of the cross section.

Regarding the challenges associated with securing permits, this likely won't be an issue for existing devices that may be used for trash monitoring as-is or that may need minor or moderate modifications. New end-of-pipe and in-stream monitoring devices/sites can be easier to permit under certain conditions (e.g., those with less beneficial uses and concerns about fish passage). In-line devices are not likely to require any permits at all.

Regardless, the Permittees will have 15 months to secure permits for MS4 outfall sites, and an additional 12 months (27 months total) to secure permits for in-stream sites. Sites can be chosen that have relatively less permitting concerns, and methods can be chosen that are relatively easier to permit (e.g., temporary devices as opposed to permanent devices). Water Board staff will help the Permittees with securing these permits. And, as requested by SCVURPPP-109, we have included language in the Fact sheet acknowledging the need for these permits, for example, to install in-stream monitoring devices and/or to retrofit outfalls for the installation of netting devices. As well, we have added permitting as a required discussion component for the TAG.

Concerns about not having enough staff for streambank sites, not having enough qualifying streambank sites, and about costs being too high for the 12:1 ratio, are no longer relevant because we have removed the potential use of indirect methods.

Please also see the response to the following combined comment in the Response to Comments table:

ACCWP-a8
SMCWPPP-14,15,165,167,171
San Jose-27
SCVURPPP-108,110

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https://static1.squarespace.com/static/5522e85be4b0b65a7c78ac96/t/58dd932f414fb5663b5a4f79/1490916184178/TCT+Creek+Monitoring+Report_FINAL.pdf

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Master Response Identifier: C.8.e-3

Comment Identifier: ACCWP-a8, SMCWPPP-14,15,165,167,171, San Jose-27, SCVURPPP-108,110

Provision No.: C.8.e.ii

Comment: *The direct methods described in Provision C.8.e are either untested by the Permittees and/or have not been assessed as to whether they can answer the Management/Monitoring Questions, and/or are unsafe. The Water Board should therefore describe (e.g., in the Fact Sheet) the referenced direct methods, and should include examples of their implementation.*

Response: We disagree that the direct trash monitoring methods are untested, that they may not answer the Management and Monitoring Questions, and that they are unsafe.

Regarding whether the methods will reliably answer the Management and Monitoring Questions, in our best professional judgment, the direct methods will – the on-land methods very like would not, to the extent they are used as indirect proxies for the direct methods – reliably answer the Management Questions and Monitoring Questions. Because the indirect methods are so imprecise (and represent such an approximation), their use might falsely confirm the null hypothesis that trash loading in receiving waters below outfalls is equivalent to trash loading in receiving waters above outfalls, for such outfalls receiving stormwater runoff from MS4 service areas controlled to the Low trash generation level.

Other than general consensus from the Permittees and from impartial third part scientific experts that we have consulted with, we believe that implementation of the direct methods will reliably answer the Monitoring Questions because they are straightforward, and when implemented according to the criteria specified in C.8.e.ii they will control for confounding variables, though perhaps less so for in-stream trash monitoring sites depending on the sites that are ultimately selected (e.g., Permittees are asked but not required to select in-stream sites that are not downstream of direct discharge sites). All possible outcomes are accounted for, so long as Permittees adhere to the required site selection criteria, and what's more, the workgroup will guide the development of the Trash Monitoring Plan (e.g., site selection) as well as its ongoing implementation.

For example, C.8.e.ii.(1) directs Permittees to sample only MS4 outfalls that drain areas controlled to the Low level. Any inputs to the MS4 systems that discharge to the sampled outfalls therefore can only represent intended bypass of full trash capture devices (and equivalent actions) such as during storm events greater than the design storm, or failure of those controls (e.g., due to poor design). In the latter case, Permittees are then directed to investigate those failures, and take remedial action as appropriate.

Similarly, for in-stream monitoring, C.8.e.ii.(2) directs Permittees to sample only sections of receiving waters that receive runoff primarily from MS4 outfalls that drain tributary drainage areas controlled to the Low level. Since in-stream sites should not be

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downstream of direct discharge sites, similar extrapolations can be made as for MS4 outfall sites, but there may also be inputs of trash loading from upstream outfalls; to the extent that in-stream sites are able to be paired (in space) with MS4 outfall sites, that will allow Permittees to characterize trash loading in the receiving water, with versus without the input of trash loading from the MS4 outfall. Otherwise, in-stream sites which are not paired with MS4 outfalls but which at least satisfy the other criteria in C.8.e.ii.(2) (namely, regarding all upstream MS4 outfalls draining only MS4 areas controlled to the Low level) will still provide a characterization of trash loading in receiving waters for such areas, and in the intermediate-to-long term will advance our region's understanding of the effects of our trash control efforts from the direct perspective of the receiving water.

Regarding the safety of these sites and methods, generally, we have revised C.8.e such that the Permittees have a substantial amount of time to find sites at which they can safely monitor trash. For MS4 outfall sites, Permittees have 12 months prior to the submittal of the Trash Monitoring Plan, and an additional 2 months (14 months total) before monitoring of MS4 outfall sites begins, to find the following: 3 sites each for Santa Clara and Alameda County, 2 sites each for San Mateo and Contra Costa County, and 1 site for Solano County. For in-stream sites, Permittees have 12 months prior to the submittal of the Trash Monitoring Plan, and an additional 14 months (26 months total) before monitoring of in-stream sites begins, to find the following: 2 sites each for Santa Clara and Alameda County, 1 site each for San Mateo and Contra Costa County, and no sites for Solano County. This is more than enough time and flexibility to establish a safe and successful Trash Monitoring program.

And, as noted previously, there are several examples of current implementation of the direct methods that we have provided in the Tentative Order's Fact Sheet.

Master Response Identifier: C.8.e-4

Comment Identifier: San Jose-27, SMCWPPP-174

Provision No.: C.8.e.ii

Comment: *Collection of data on material type is resource intensive, and may itself be unsafe (in particular, during storm events).*

Response: Collection of data on material type is a critical component of Trash Monitoring. As explained by SFEI and SCCWRP's California Trash Monitoring Methods project (<https://www.sfei.org/projects/california-trash-monitoring-methods-project>, <https://sites.google.com/sfei.org/trash/>), organizing trash items into categories based on their composition (i.e., material type) allows for the identification of categories making up the majority of the volume and provides information on those that should be targeted for potential source control.

Additionally, this can inform the effectiveness of upstream trash capture devices (e.g., Full Trash Capture Devices) and Other Actions (in addition to source control) with

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respect to different types of trash. That the effort of this data collection is ambiguously resource intensive is not, on its own, sufficient justification to remove it.

Regarding safety, it does not follow logically why collection of data on material type is particularly unsafe, as compared to collection of data on trash loading absent consideration of material type. Also, this has been a standard component of several recent trash monitoring efforts.

For general concerns regarding safety, please refer to Master Response Identifier: C.8.e-3.

Master Response Identifier: C.8.e-5

Comment Identifier: SCVURPPP-110, SMCWPPP-167

Provision No.: C.8.e.ii.(3)

Comment: *The use of trash booms with a skirt that extends to the bottom of the water column, seines, or other equivalent in-stream devices should not be used during storm events because they could cause flooding in adjacent upland areas. In practice, trash booms are generally removed during the wet season or when storm events are forecast.*

Remove this monitoring method or revise to remove language about using these methods during storm events. The MRP should not encourage monitoring methods that pose a potential threat to lives and property in the vicinity of the monitoring station.

Response: We have revised C.8.e.ii so that, for the in-stream monitoring, Permittees are not required to screen the entire width and depth of the receiving water. However, they should capture as much of the width and depth of the cross section as is feasible and safe.

Trash booms are not an acceptable in-stream trash monitoring method because they only capture a limited section of the receiving water cross section, and they are typically removed during wet season storm events anyway.

As explained above, the Permittees will have substantial time to find MS4 outfall and in-stream monitoring sites, at which there are minimal concerns about flooding, personal safety, and property damage. In general, Permittees may opt to select MS4 outfalls which drain moderately- or small-sized tributary MS4 service areas, which have less of those risks.

Please also refer to Master Response Identifier: C.8.e-3.

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Master Response Identifier: C.8.e-6

Comment Identifier: ACCWP-a8,44, CCCWP-45, Oakland-18, SMCWPPP-14,15,16, 172,178

Provision No.: C.8.e.iii

Comment: *Because there may not be enough qualifying storm events to sample in a given year (e.g., due to drought), make the following change: eliminate annual minimums, and instead prescribe only the total number of samples that must be collected by the end of the 5-year Permit term, and also generally reduce the required number of (wet weather) sample events because of concerns about cost and staffing and qualifying storm events.*

SMCWPPP specifically requests, for each site, that the minimum required number of monitoring events be reduced from 15 over the 5-year permit term (i.e., 3/year for 5 years) to 9 (equivalent to 3/year for 3 years).

Response: There are several problems with this proposal. First, a requirement for annual minimum sample events ensures that Permittees make progress towards completing the monitoring requirements during every year of the Permit term. Second, in the event that the 5-year Permit term is administratively extended, no monitoring would be required during those subsequent years. Third, Permittees might group sample events in time rather than spreading them out evenly over the course of the Permit term, and the quality of data produced by such a trash monitoring program would be significantly lower.

Instead, we have included language in the Permit allowing the Permittees to certify in their Annual Progress Report that there were not enough qualifying storm events to sample in the preceding water year, in which case the Permittees would be required to make up those samples in the subsequent (upcoming) water year.

Effectively, the minimum required number of monitoring events for each MS4 outfall site by the end of the 5-year Permit term will be reduced from 15 (3/year for 5 years) to 12 (3/year for 4 years) over the course of a 5-year Permit term, because the start date will be pushed back from October 1, 2022, to October 1, 2023 (see response to comment C.8.e.iii & C.8.e.v). Likewise, the minimum required number of monitoring events for each in-stream site has been reduced from 15 to 9.

Master Response Identifier: C.8.e-7

Comment Identifier: CCCWP-45,46,108, Oakland-18,19, ACCWP-a8,45, SCVURPPP-7,109, SMCWPPP-14,19,166,171,182,183,214, Solano-7, MRP 3 Testimony Hearing Transcript, October 12, 2021, Mitch Avalon, CCCWP – Page 74 (Line 16-25), 75 (Line 1-5)

Provision No.: C.8.e.iii & C.8.e.v

Comment: *Delay submittal of the Trash Monitoring Plan from September 30, 2022, to July 1, 2023 (or to September 30, 2023). Delay the start date for Trash Monitoring from*

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October 1, 2022, to October 1, 2023. Otherwise, Permittees will not have enough time to find sites, set up logistics, develop the Trash Monitoring Plan and solicit/incorporate feedback from the TAG, and secure all necessary permits. Permittees can't start working on these items prior to adoption of the final Permit, because prior to adoption those items are subject to change. SMCWPPP-182 suggests that, in the alternative to pushing back the submittal date of the Trash Monitoring Plan, it could just be eliminated, given how prescriptive it is. SMCWPPP-183 requests that the requirement to solicit input from the TAG and others be removed if the submittal of the Trash Monitoring Plan is not delayed. SMCWPPP-214 requests that, if any of the dates in Provision C.8.e are changed, the Fact Sheet is revised accordingly.

Response: We agree with the request to push back the submittal of the Trash Monitoring Plan, and the start date of trash monitoring, by an additional year. With this extra time, the Permittees will have sufficient time to find sites, set up logistics, fully develop the Trash Monitoring Plan and solicit and incorporate feedback from the TAG, and secure all necessary permits.

As noted in other responses, we are providing an additional year before in-stream monitoring must commence, relative to MS4 outfall monitoring. So, MS4 outfall monitoring has been delayed by one year (to October 1, 2023), and in-stream monitoring will be delayed by a total of two years (to October 1, 2024). This means Permittees can prioritize working on outfall monitoring and refine those methods before they must begin implementing in-stream monitoring. However, we are keeping both components in the Trash Monitoring Plan (rather than breaking up the plan into two separate submittals) because we want both components to be considered together (to the extent possible).

We do not agree with the request by SMCWPPP-182 to remove the Trash Monitoring Plan altogether. The Permittees will implement the Trash Monitoring Plan, and as such the Plan will serve as the guiding document for their implementation. The Permittees' development of the Plan will also facilitate the receipt of input from the TAG members.

Master Response Identifier: C.8.e-8

Comment Identifier: ACCWP-46, Oakland-20, CCCWP-20, SMCWPPP-184, Solano-8

Provision No.: C.8.e.v.(e)

Comment: *Permittees would be challenged to perform power analysis for the Trash Monitoring Plan because there is not enough available trash data of the appropriate kind or consistency in methods used for the data, because trash data in general may not have normal or lognormal distributions, etc. Confusion was expressed by some commenters about which monitoring schedule the Permittees would comply with, whether the schedule in Table 8.e.2 or the schedule suggested by the power analysis.*

Response: These comments overstate what is needed to conduct a power analysis. They are also incorrect that trash monitoring data inherently does not lend itself to power analysis. The data that will be collected for C.8.e can indeed be used for power

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analysis. All power analysis does is compare two distributions, or predict how many samples are needed to confirm whether two distributions are distinct, and the data do not even need to be normally-distributed because nonparametric methods of power analysis are now available.

That said, we agree that there likely is not enough existing data that is of the appropriate type for the Permittees to do power analysis for trash at this time. As data is collected, the Water Board may conduct a power analysis towards the end of MRP 3, to inform changes (if any) to the monitoring schedule prescribed in C.8.e.iii.(1), for MRP 4.

Regarding which monitoring schedule to comply with, this is no longer an issue because we have eliminated the requirement to perform the power analysis.

Master Response Identifier: C.8 – 2

Comment Identifier: Baykeeper-15d

Provision No.: C.8.f (Pollutants of Concern Monitoring)

Comment: *Stormwater Sampling and Role of Sediment Sampling*

Table 8.1, POC Monitoring Methods, in Provision C.8.f.ii requires various monitoring methods for five management questions. There are several monitoring methods listed for each management question, but none are mandatory – Permittees will be able to pick and choose their monitoring methods, which is problematic to Baykeeper. Monitoring methods to answer management question 1 allows Permittees to collect samples of urban stormwater runoff or bedded sediments – it does not require both. Sediment samples can be collected year-round, and need not reflect wet weather conditions.

Response: It is appropriate to allow a choice of monitoring methods for addressing the management question 1, which is about finding source locations. If Permittees were constrained to using only wet weather samples in stormwater to find source areas and contaminated portions of watersheds, finding these areas would be much less effective, much more costly, and much less efficient. In fact, bed sediment data collected at all times of the year offers a valuable and efficient means of locating source areas and characterizing contamination in watersheds. During storm events of sufficient intensity, the pollutants attached to sediment are mobilized and transported from source areas, but some of this contaminated sediment is often deposited near the source area so there is a “fingerprint” of the source that can be detected through sampling this bed sediment. If the permit required Permittees to find source areas through stormwater sampling alone, it would require the Permittees to mobilize field crews at just the right time during a sufficiently intense rain event to ensure that they could catch the transport while it is happening. This strategy will sometimes work, but it is not an intelligent strategy or wise use of limited resources. It will very likely result in lots of monitoring

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effort that sometimes misses the transport. Stormwater monitoring for POCs is a part of the overall strategy and is important to generate data for modeling, but it is not a wise strategy (by itself) for finding sources and contaminated areas. A better strategy is to use a combination of stormwater and bed sediment sampling, which is what Permittees tend to do. We will add a passage to the Fact Sheet to more clearly explain the value of bedded sediment data for source identification or identifying contaminated portions of watersheds.

Comment: *There also appear to be two options for collecting urban stormwater runoff samples: 1) through MS4s or receiving waters; and 2) at outfall locations. Draft MRP 3 is a stormwater permit, thus monitoring requirements must indicate whether Permittees are complying with Draft MRP 3's discharge prohibitions and receiving water limitations, which presumably requires sampling stormwater. As discussed above, in order to assess permit compliance, receiving water monitoring must be accompanied by outfall monitoring to determine whether discharges are causing or contributing to exceedances of applicable water quality standards. Thus, the Regional Board must revise Table 8.1 to mandate Permittees collect stormwater samples from MS4 outfalls.*

Response: First, we note that receiving water monitoring provides a direct means of monitoring for receiving water limitations. Sampling stormwater discharges from an outfall is a less direct means of monitoring for receiving water limitations because the water quality in an outfall is generally not representative of the water quality of the receiving water into which it flows. A more direct means of determining the quality of receiving waters is to measure the quality of receiving waters directly. Receiving water monitoring is required for the Bay (via the RMP) and for creeks and stormwater conveyances (trash, pesticides, toxicity, pollutants of concern). We further note that we addressed this topic thoroughly in the C.8.f section of the Fact Sheet. There we explained the special challenges of assessing loads of PCBs and mercury because of the wide distribution and the unique features of how these pollutants move through watersheds attached to sediment particles.

Outfall monitoring is a component of the overall POC monitoring strategy, but it is just one tool in the monitoring toolbox, and it is not the best tool for every information need. We very carefully explained in the Fact Sheet why outfall monitoring is *not* a feasible or effective approach for assessing loads of contaminants like PCBs and mercury.

Consider the following. PCBs and mercury are typically transported from watersheds to receiving waters attached to sediment particles during rain events. However, not every rain event will mobilize these sediment particles. The mobilization depends on the intensity of the rainfall event, antecedent conditions, the slope of the land use, the nature of the land use and source area, and a range of other factors. Also consider that there are several hundred (perhaps greater than 1000) outfall locations where loads could be assessed. If Permittees could successfully mobilize monitoring crews during the time of the right rainfall event (when transport is taking place), they would perhaps be able to collect monitoring data during that single event. From these data, one could

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compute the load for that event. We would then have a finite number of these events that could be accomplished for the hundreds of outfalls in the region. The load assessed for the individual storms is not guaranteed to be representative of a storm for that watershed. It is merely a load from a single storm. And, it is very difficult to mobilize field crews successfully to capture the right portion of the hydrograph during a storm event. The peak of transport may be missed, and with it the majority of the loading. It is not valid simply to consider this storm load as representative of even that one monitoring location. Different storm sizes yield different loads due to the features mentioned above. This is just a small subset of the difficulties in using the outfall monitoring approach for loads assessment (which is the relevant metric for POCs like mercury and PCBs) that the comment seems to recommend. The data obtained via collecting a limited number of grab samples of PCBs and mercury at all outfalls during storm events would have even less value since there would be no way to use these data to generate loading estimates. We have learned about all of this through work conducted over the last two decades through the RMP and MRP monitoring. The monitoring requirements in the MRP are informed by these two decades of experience.

We provided a more detailed explanation for the monitoring strategy in the C.8.f section of the Fact Sheet. We explained the method for assessing loads using watershed loading models calibrated with data collected strategically from representative watersheds. We explained that the best quality monitoring data is collected through an intensive procedure using fixed station sensors to measure turbidity, which is calibrated to suspended sediment concentrations. We also described how these suspended sediment concentrations are combined with grab samples of pollutants collected during storms to generate loading information that can be extrapolated to places and times not directly sampled. The intensive effort to collect these fixed station and POC grab sample data simply cannot be done everywhere because of logistical and budget constraints. There are several hundreds of possible monitoring locations, and it is not feasible to do this type of monitoring except in a limited number of strategic and representative locations. Instead, data from a number of fixed stations are combined with other sorts of monitoring data and used to calibrate and validate watershed loading models.

Comment: *Further, it is unclear to Baykeeper how sediment sampling can be used to show compliance with water quality standards and raises the following questions: 1) what standards will sediment samples be evaluated against; 2) will sediment samples be compared to sediment quality objectives that have yet to be enacted; and 3) will sediment samples be evaluated to determine whether discharges are causing or contributing to an exceedance of an applicable water quality standard? While Table 8.3, POC analytes and analytical methods, includes laboratory analytical methods for sediment samples, this is not the same as standards to compare the data to. Data collection only for sake of collection is not a reasonable use of limited resources. If sediment sampling remains in Provision C.8.f, then the Regional Board must revise*

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these requirements to clarify how sediment sampling will be used to determine compliance with Draft MRP 3.

Response: The purpose of the sediment sampling to *measure contaminant concentrations in sediment* and use this information to locate pollutant source areas or portions of contaminated watersheds. We explained above how these data are used to locate source areas. These sediment data are not themselves compared to a standard but rather to locate sources. This type of monitoring provides valuable information is not “data collection for the sake of collection.” They are powerful because they help overcome the stormwater monitoring problem of not being able to sample everywhere at all times. Deposited sediment containing contaminants constitutes a “fingerprint” that can be detected that provides information to locate source areas and assess control measure performance. This type of monitoring is one option among many, but it is useful for addressing a critical information need related to source identification.

Comment: *Again, Baykeeper objects to Provision C.8.f.iii which allows for POC monitoring to be conducted countywide. As discussed above, monitoring must be capable of assessing an individual Permittee’s compliance with the permit, and Draft MRP 3 must be revised accordingly.*

Response: As explained in Master Response Identifier C.8-1, representative monitoring coupled with accounting and tracking of Permittees’ control actions yields the best individual Permittee compliance data. It is highly impractical to require every permittee to show compliance with receiving water limitations and POCs by monitoring all receiving waters in their jurisdictions. That will be an extraordinary amount of monitoring that is unnecessary when representative monitoring can be employed, as it is in the Permit. Representative monitoring will not only find problems, it will inform compliance. For example, if a representative monitoring sample shows a problem with one or more pollutants in a receiving water, the Water Board would likely not interpret the result to mean that the problem is confined only to that one waterbody or only those Permittees contributing to that waterbody. Rather, the Water Board would consider that evidence of a more widespread problem and use the information, along with the accounting and tracking of Permittees’ control actions, for individual Permittee compliance determinations. For mercury and PCBs, please also see the above responses on how monitoring is used in conjunction with models to generate loading estimates. Please also see the more extensive discussion of this topic in the Fact Sheet section on C.8.f.

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C.10 (Trash Load Reduction)

Extension of deadlines for 90% and 100% trash reduction requirements

Master Response Identifier: C.10.a -1

Comment Identifiers: San Mateo County – 16, SCVURPPP – 9, Dublin – 1, ACCWP – 54, SCVURPPP – 113, 114, 123, SMCWPPP – 21, 219, 220, 240, Caltrans – 1,2, San Jose – 3, 28, CCCWP – 53, 54, Oakland – 22

Provision No.: C.10.a.i

Comment: Permittees have commented that the COVID-19 pandemic has significantly impacted their operations, budgets, and staffing and, impacts are likely to continue over at least the next few years. As a result, it is unrealistic to expect co-permittees to maintain and accelerate progress towards the benchmarks at the same pace as prior to the pandemic. Permittees are therefore requesting that deadlines to achieve 90% and 100% trash reductions should be extended by at least two years each to July 1, 2025 and July 1, 2027, respectively. In addition, Permittees have requested that the 90% trash reduction requirement should be a performance guideline (similar to the 60% goal in MRP 2.0). Permittees have stated that adopting these recommendations will make the overall program more feasible and better support the planning for long-term trash reduction solutions and collaborative projects with Caltrans.

Response: We acknowledge the economic challenges faced by Permittees related to the COVID-19 pandemic, as well as challenges with implementing trash controls in the remaining uncontrolled trash generation areas, many of which are moderate trash generating and within which it is not as cost-effective to implement trash controls. To accommodate these challenges and allow more time for Permittees to work with Caltrans on implementing cooperative projects, the Tentative Order extended the 100 percent compliance date to June 30, 2025, three years beyond the previous target date of July 1, 2022, in MRP 2. Furthermore, Permittees that may still be challenged in meeting the 100 percent reduction benchmark by June 30, 2025, can be granted an additional year (until June 30, 2026) though the implementation of an approved Direct Discharge Control Plan.

In addition, we decline to make the 90 percent trash reduction requirement a performance guideline. The 90 percent trash reduction requirement is a critical milestone towards the end goal of achieving 100 percent reduction or no adverse impacts to receiving waters. If it is turned into an unenforceable performance guideline, Permittees may not treat it with the same urgency, which will forestall efforts towards achieving the 100 percent milestone.

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Requirements for Private Land Drainage Areas:

Master Response Identifier: C.10.a - 2

Comment Identifiers: SCVURPPP – 11, 116, SMCWPPP – 223, Dublin – 2, Oakland & San Jose – 5, 30, SMCWPPP -23,52, ACCWP – 56, Oakland – 24, San Mateo County – 18, CCCWP – 60

Provision No.: C.10.a.ii.(b)

Comment: *Permittees have requested that the requirement in C.10.a.ii. for municipalities to manage trash on all private properties (regardless of size) down to a level of low trash generation be removed. The argument made is that this requirement is an expansion of the requirement in MRP 2.0 (i.e., focused on areas >10,000 sq. ft.) and is impracticable to achieve, especially in the timeframe required*

Response: The language in C.10.a.ii.b on trash control requirements for private land drainage areas is not new, nor an expansion of the requirements in MRP 2. Starting with MRP 1, issued in October 2009, Permittees have been required to control trash discharges from their MS4s regardless of the source, with the exception that they could rely on permits issued by the Board to other dischargers, such as Caltrans, that discharge to a Permittee's MS4. MRP 1 specifically required Permittees to implement and maintain a mandatory minimum number of full trash capture devices by July 1, 2014, to treat runoff from an area equivalent to 30% of Retail/Wholesale Land that drains to MS4s within their jurisdictions. The basis of this requirement was a recognition that many or at least some commercial land use areas are likely very high, high, or moderate trash generation.

In MRP 2, Permittees were required to ensure private land areas, irrespective of size, that were plumbed directly to the Permittees' storm drain system in very high, high, and moderate trash generation areas were controlled with full trash capture systems or with control measures with demonstrated equivalence to or better than full trash capture systems. MRP 2 required Permittees to submit a map July 1, 2018 (or otherwise record the location) of all private land areas greater than 10,000 ft² within very high, high, and moderate trash generation areas that are plumbed directly into the Permittees storm drain system as a demonstration of effort and progress towards identifying and ensuring control of trash from those areas. However, Permittees are responsible for all such areas regardless of size. The 10,000 ft² threshold in MRP 2 was a mapping criterion and not a criterion to limit Permittee.

Furthermore, since the onset of the NPDES stormwater permit program with the establishment of federal regulations in 1990 and the ensuing MS4 permits, Permittees have had the responsibility and requirement to certify they have adequate legal authority to control discharges to their MS4s from private land areas. The requirements derive from federal NPDES permit application requirements (40 CFR § 122.26) for

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municipal separate storm sewer discharges. These regulations required MS4 permittees to provide documentation that they have or otherwise to establish legal authority to control discharges to their MS4s. This included: control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity; prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer; control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than stormwater; and require compliance with conditions in ordinances, permits, contracts or orders. The regulations also required MS4 permittees to have a program to monitor and control pollutants in stormwater discharges to their municipal systems from industrial facilities that the municipality determines are contributing a substantial pollutant loading to the municipal storm sewer system. To implement these regulations, the Board has included legal authority requirements in MS4 permits. MRP 1 and MRP 2 included the following [Provision C.4.a.ii.(1)]:

Permittees shall have the legal authority to oversee, inspect, and require expedient compliance and pollution abatement at all industrial and commercial sites which may be reasonably considered to cause or contribute to pollution of stormwater runoff. Permittees shall have the legal authority to require implementation of appropriate BMPs at industrial and commercial to address pollutant sources associated with outdoor process and manufacturing areas, outdoor material storage areas, outdoor waste storage and disposal areas, outdoor vehicle and equipment storage and maintenance areas, outdoor parking areas and access roads, outdoor wash areas, outdoor drainage from indoor areas, rooftop equipment, and contaminated and erodible surface areas, and other sources determined by the Permittees or Water Board Executive Officer to have a reasonable potential to contribute to pollution of stormwater runoff.

Similarly, both MRP 1 and MRP 2 required Permittees to have adequate legal authority to prohibit and control illicit discharges the discharge of spills, dumping, or disposal of materials other than storm water to their storm drain systems.

Also noteworthy, to comply with the Cease-and-Desist Orders that the Board issued to the Cities of Hercules and Pinole in 2018 for violation of the 70% trash reduction requirement, both cities adopted ordinances requiring installation of trash capture devices on private properties that are plumbed to the municipal storm drain system.

MRP Permittees have thus had since October 2009, the date MRP 1 was adopted, to develop a plan collaboratively with private land business owners in order to demonstrate that trash generated on their properties is appropriately controlled. The goal for 100 percent trash capture/no adverse impacts to receiving waters cannot be achieved if private proper owners are not held accountable and required to control trash generated on their property and discharged through the Permittees' MS4 system to receiving waters.

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Thus, the Tentative Order adds more specificity to the underlying requirement to ensure that private areas directly plumbed to the MS4 achieve full trash capture or its equivalent. Language within the Tentative Order maintains that if there is a full trash capture device downstream of these private land areas that is designed, operated, and maintained to control trash discharges from private land areas, then additional controls are not necessary.

Trash reduction credit for source controls

Master Response Identifier: C.10.b - 1

Comment Identifiers: Santa Clara – 2, Oakland – 21,25, SMCWPPP – 22, 50, 235, 239, 250 CCCWP – 63, Palo Alto – 5, Los Altos – 3, San Jose – 31, SCVURPPP – 119, 128, San Mateo County – 17, Solano – 16, ACCWP – 59, SCVWD – 4

Provision No.: C.10.b.v

***Comment:** Permittees have requested that the C.10.b.v source control credits should continue to allow up to 10% reduction for existing and new jurisdiction-wide source controls implemented through the upcoming permit term and beyond. Permittees have stated that through their adoption and enforcement of source control bans for persistent trash items such as foam foodware and single-use plastic bags, they have prevented low trash generating areas from morphing into moderate trash generating areas, reduced the likelihood of these types of trash entering receiving waters from wind or litter, and prevented the plugging of trash capture devices installed in storm drain inlets. Elimination of these credits would discourage the meaningful and effective implementation and enforcement of these ordinances.*

Response: Regional Board staff agrees that source control measures can be an effective tool in controlling and preventing discharges of trash to receiving waters. Source control ordinances can reduce the amount of trash on the landscape by preventing a certain type of trash (such as plastic bags and polystyrene food ware) from being deposited on the landscape when it is not disposed of properly. This reduces trash accumulation and generation, which subsequently should be reflected in a Permittees' trash generation maps. Approximately 75% of Permittees claimed credit for implementing source control measures under MRP 2.0 for plastic bags and/or polystyrene foodware bans, and Permittees will continue to benefit from the decrease in trash volume of these items within their trash management areas. Permittees have stated that through the assistance of these source controls, they may have reduced a trash reduction rate in some areas from moderate to low. However, they have provided little or no quantitative evidence of reduced trash generation rates in specific areas. Regardless, it is in the Permittees' interest to continue implementing and enforcing

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existing source control ordinances to prevent areas controlled to a low level due to source controls from "morphing" back into moderate or high trash generation areas.

Continuing to allow a 10% credit for source control measures in addition to documentation that trash generation areas have been converted from very high, high, or moderate to low trash generation results in double counting. Permittees would get the source control percentage credit in addition to the reduced trash loads that should be reflected in their trash generation maps due to implementation and verification of trash controls. For example, if a Permittee claims 90% trash load reduction through conversion of very high, high, or moderate trash generation areas to low trash generation area through implementation full trash capture systems and/or implementation of controls equivalent to full trash capture, such as a source control, then there is no need for adding an additional source control credit to those managed trash generation areas. If source controls address 10% of a community's trash generation, then that 10% credit should only apply to the remaining unmanaged areas. In this case, the credit would apply to the 10% unmanaged area (10% of 10%) for an overall 1% credit not a 10% credit. Providing a Permittee a full 10% credit would be the equivalent of allowing the Permittee to continue to discharge trash from 9% of its trash generation areas. That does not comply with the Trash Amendments' prohibition on the discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State.

The Permit provides a compromise. Sub-provision C.10.b.v. allows Permittees to claim up to 10% credit for the implementation of new jurisdiction-wide source control actions that reduce trash at the source, until June 30, 2026. Permittees must provide substantial and credible evidence that the new source control actions are being implemented jurisdiction-wide reduce trash by the claimed value. This will allow the Permittees to claim the credit while they are in the process of achieving the 100% trash load reduction requirement. However, the 10% credit must and will sunset for a Permittee to ultimately comply with the Trash Amendments' requirement to meet the trash discharge prohibition through full trash capture or full trash capture equivalency.

After this time, source control measures will still have utility. Thus, source controls may, in combination with other controls, help the permittees in achieving full trash capture equivalency, provided the controls being implemented within a trash generation area are documented, assessed, and verified in accordance with Provision C.10.b.iii. In some circumstances, Permittees may even be able to claim that source control measures on their own achieved trash capture equivalency in specific trash generation areas.

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Offsets for creek and shoreline cleanups

Master Response Identifier: C.10.f – 1

Comment Identifiers: AClasgens -1, Friends of 5 creeks – 1, FoSC – 1, Pdonald – 1, Grass Roots Ecology – 1, Watershed Project – 2, Oakland – 27, ACCWP – 62, Solano – 17, CCCWP – 67, San Jose – 34, Caltrans – 3.

Provision No.: C.10.f.i

Comment: Creek and shoreline cleanups have proven to be beneficial in community engagement. Permittees and environmental groups have stated that the proposed sunset of these credits at the end of the Permit term is likely to decrease positive community-based creek and shoreline improvement events. This is due to the likelihood that local governments will reduce the amount budgeted and spent to organize and support volunteer hands-on cleanups. Permittees have stated that they have invested significant resources into building and supporting a large network of volunteers that clean up trash and foster environmental stewardship among youth and citizens. Without receiving ongoing trash reduction credit for these efforts, they state that it will be difficult to justify expending resources towards volunteer efforts. With the loss of these credits, municipalities will not have the necessary incentives, and thus the resources, to organize these cleanups. This responsibility will then be left to community groups and non-governmental organizations, who themselves will not have the authority or the resources to conduct and coordinate them. Furthermore, relegating creek and shoreline cleanups to Provision C.7, Public Outreach and Information, in lieu of credits will eliminate the nexus between trash reduction outreach and corresponding cleanup actions to reduce trash levels, and will void the essential partnership between the public and Permittees.

During the October 12, 2021, testimony hearing, Board Chair Jim McGrath and board members Andy Gunter and Bill Kissinger expressed their support for maintaining offsets available from creek and shoreline cleanup events and recognize its importance in community engagement.

Response: We agree that creek and shoreline cleanups provide a valuable opportunity for education and public engagement. Community-based cleanup programs are a relatively low-cost way for Permittees to benefit from not only trash reduction in their creeks and receiving waters, but they also foster stewardship within their community. However, the Trash Amendments' prohibition and the MRP require trash to be controlled before it is discharged from a Permittees' MS4 to receiving waters so continuing to allow offsets for creek and shoreline cleanups to continue after June 30, 2025, would mean a Permittee that claims 100% trash load reduction that includes a percentage offset due to creek and shoreline cleanups would still have trash discharges, equivalent to the claimed offset, from moderate, high and/or very high trash generating areas. The 100% compliance would be "on paper" because the corresponding percentage of trash load would still be discharging from the MS4 to

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receiving waters because trash discharges from those unmanaged areas will continue to remain uncontrolled and discharge trash. Trash enters the waterways continuously, so sporadic, ad hoc cleanups by volunteer groups are a poor substitute for well-managed and institutionalized controls, such as full-trash capture devices or demonstrated equivalent actions like regular trash pickup or increased street sweeping in trash generation.

Permittees assert that the intangible benefits generated from the organization and implementation of creek and shoreline cleanup efforts are significant. As such, it's in the Permittees' interest to continue to support creek and shoreline cleanups irrespective of the expiration of these credits by June 30, 2025. In addition, we encourage Permittees to use creek and shoreline cleanups as part of an effective education and outreach program recognized under Provision C.7.

Curb inlet screens:

Master Response Identifier: C.10.b – 2

Comment Identifiers: CCCWP – 64, San Jose – 32, SCVURPPP – 120, SMCWPPP – 236, Oakland – 26, ACCWP – 60

Provision No.: C.10.b.vi

Comment: *Some Permittees have stated that results submitted to the Water Board in May 2020 should be sufficient to show curb inlet screens effectiveness in controlling trash from moderate trash generation areas. As a result of this study, a minimum 100 percent reduction should be "provisionally" allowed during MRP 3 as information gaps are addressed. Permittees have requested that Water Board staff should consider removing or minimizing the requirement for additional study and analysis that is currently required to address the highest priority information gaps.*

Response: During MRP 2, Permittees assessed the benefit of curb inlet screens, in combination with street sweeping, in reducing the amount of trash discharged through the MS4. A study to this effect was submitted to the Water Board on May 25, 2020 by consultants (EOA Inc.) on behalf of Permittees that provided some evidence showing that curb inlet screens, when paired with street sweeping, can be effective in preventing larger trash items (such as bottles or plastic bags) from discharging through Permittees MS4 system. However, the effectiveness of curb inlet screens in preventing larger trash items for discharging through the MS4 was dependent on the presence of horizontal surface grates installed near the device. In the absence of horizontal surface grates, the study concluded that the likely increase in hydraulic pressure from stormwater flows could potentially force open the retractable screens and thus allow more trash and/or debris to enter the curb inlet at a greater rate and therefore negate the benefit of the installed device. In addition, the study did not evaluate the use of a 5mm screen, within the horizontal surface grate, to prevent trash items greater than 5 mm in diameter from

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discharging into the MS4. As a result, smaller persistent trash items (cigarette butts, straws, fragmented plastic and polystyrene food ware etc.) could readily enter the MS4 through the unscreened horizontal surface grate despite the installation of a curb inlet screen. These smaller trash items are more effectively removed from storm drain inlets that have a full trash capture device (due to the 5 mm minimum screen threshold requirement).

In addition, the effectiveness of curb inlet screens in preventing discharges of trash to receiving waters is contingent upon the proper implementation of a street sweeping program that can effectively collect trash items (screened via the curb inlet screen) that may have accumulated along the curb and in the public right of way. A street sweeping program that is too low (infrequent) relative to the baseline trash accumulation rates can lead to trash accumulation against the screen and reducing screen performance. As a result, a crucial component of this study that should have been included was an evaluation of the effects of street sweeping on curb inlet screen performance (i.e., how does a low trash sweeping frequency compared to a high trash sweeping frequency effect curb inlet screen performance). Water Board staff have identified these critical knowledge gaps within the study and have provided Permittees with a list of recommended actions that need to be demonstrated, within C.10.b.v, in-order for Permittees to be granted partial trash reduction benefits through the installation of curb inlet screen-based devices.

C.11/12 (Mercury Controls and Polychlorinated Biphenyls [PCBs] Controls)

Recurrent themes emerged in Permittee comments on C.11/12.c requirements, including the lack of flexibility provided in complying with C.11/12.c requirements, the difficulty in complying with the magnitude of the performance metric, and disagreement on the amount of remaining old industrial land use. Each of these major themes has additional elements discussed in the following responses.

Master Response Identifier: C.11/12 – 1

Comment Identifiers: SMCWPPP comments 27 and 271, San Jose comments 6 and 39, ACCWP comments a5 and 68, CCCWP comments 75, 77, and 78, and comment 6 jointly submitted by Oakland and San Jose

Provision No.: C.11.c and C.12.c

Comment: *Lack of flexibility in complying with C.11/12.c requirements*

The comments on C.11/12.c suggest that there is a need to emphasize the flexibility allowed by the permit in complying with this subprovision. Within the broad theme of compliance flexibility, Permittee comments touch on three sub-themes. First Permittees claim that provision C.11/12.c requires control measure implementation in portions of old industrial area that may not be contaminated. Second, the Permittees claim that

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there are limited opportunities to address PCBs in the public rights-of-way; doing so would be expensive, and this is inefficient and because the majority of PCBs originated from private properties can only be remedied through redevelopment or source property referral. Third, Permittee comments suggest that Provision C.11/12.c necessarily requires implementation of treatment controls, and Permittees present very high compliance cost estimates based on this assumption.

Flexibility Theme 1 – Requiring control measure implementation on areas that may not be contaminated

Response: Several Permittee comment letters state that Provision C.11/12.c requires the implementation of treatment or other controls on areas that do not have elevated levels of PCBs and that (old industrial) areas should be confirmed to have an elevated level of PCBs prior to planning treatment for the area. There are two issues here: First, many comments (e.g., CCCWP-75) contain the erroneous claim that Provisions C.11/12.c requires **treatment controls** in old industrial land use. On the contrary, these Provisions clearly indicate that a range of control measures can be implemented to comply, including treatment controls, diversion to wastewater treatment plants, redevelopment, enhanced operation and maintenance³¹ controls, or other controls. Clearly, treatment control measure implementation is not required. Permittees should use their judgment in choosing from the range of options. We respond in greater to this claim under “Flexibility Theme 3” below.

The second part of the claim - that control measures (of any type) are being required on areas that may not have elevated levels of PCBs requires an explanation of the performance metric. Provisions C.11/12.c require control measure implementation to address 2,580 acres (reduced from 3,300 acres in Tentative Order) of old industrial land use, whether this land use exists on private property or in the public right-of-way. This is not the footprint of the control measure facilities, but rather the acres treated or addressed by the control measure. For example, the runoff from some area of land use may be treated by a control measure much smaller than the drainage area being treated.

Based on data submitted by the Permittees, it is highly likely that more than 2,580 acres of old industrial land use are considered at least moderately contaminated (0.2 mg PCBs/kg). Specifically, there have been over 1,200 samples analyzed for PCBs in old industrial areas in Alameda, Contra Costa, San Mateo, Santa Clara, and Solano counties between 1999 and 2019. The 75th percentile concentration of these data is 0.21 mg PCBs/kg (SCLRA 2021). This means that more than 25 percent of the samples had a concentration above 0.2 mg PCBs/kg. One can reasonably assume that these

³¹ This was mistakenly termed “enhanced operation and treatment” in the Tentative Order.

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samples are also spatially representative of old industrial area. In other words, if one takes a sample somewhere in an old industrial area, there is about a 25 percent probability that the concentration will exceed 0.21 mg PCBs/kg. There are, according to information submitted by Permittees, about 33,100 acres of old industrial land use in the MRP area. Applying this logic suggests that over 8,200 acres of old industrial land use would be considered moderately contaminated. Permittees have subsequently submitted information in comment letters suggesting that the amount of old industrial land use subject to control measure implementation is far less than 33,100, and we address those claims in the responses below. However, based on PCBs concentration data submitted by Permittees along with previously reported land use amounts, there is a surplus of moderately contaminated areas to which control measures can be applied. Provisions C.11/12.c call for control measure implementation address a substantial fraction of these moderately contaminated areas, but the Tentative Order leaves it up to the Permittees to choose where and how to effectuate this implementation. It is incumbent upon Permittees to implement control measures wisely and based on information suggesting that they are choosing appropriate locations where PCBs will be addressed.

Flexibility Theme 2 – PCBs on private property vs. public rights-of-way

Comment: *Permittee comments concerning PCBs on private property emphasize that the Tentative Order does not recognize that most of the PCBs originate from private parcels which then are transported through public rights-of-way including the municipal storm drain system. Permittee comments also incorrectly suggest that the PCBs on private property can only be addressed through referring the property to the Water Board for cleanup or through the reductions realized as these private parcels are redeveloped. Permittees are therefore limited to implementing control measures to address PCBs in the public rights of way where there are limited opportunities such that it is not economically feasible to implement enough control measures to achieve the performance metric. Further, these control measures implemented in the public rights-of-way are expensive and do not address the underlying problem of the ongoing load from private properties and would be ineffective for properties with inlets plumbed directly to the municipal storm drain system via underground piping.*

Response: The SF Bay PCBs TMDL wasteload allocations for urban runoff discharges applies to PCBs entering San Francisco Bay from municipal stormwater conveyances. The distinction between PCBs that originated from private parcels vs. public rights-of-way is not relevant. The important point is that the PCBs are transported through public rights-of-way and the municipal storm drain system to receiving water and Permittees are responsible for these discharges from their storm drain systems. Therefore, consistent with the wasteload allocations, permit requirements to achieve load reductions do not make an accommodation for the origin of the PCBs, and Permittees are responsible for the PCBs that are discharged to receiving waters from municipal storm water conveyances, regardless of origin. Provisions C.11/12.c do not specify *how*

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Permittees should accomplish achieving the load reductions from old industrial areas, but rather establishes a performance metric expressed either as an acreage of land use addressed or a corresponding load reduction accomplished. Permittees are responsible for devising the approach and choosing the control measures appropriate for the circumstances.

Permittees are not fully acknowledging, based on submitted comments, their direct authority to compel private property owners to prevent pollutant discharges from private parcels to the municipal storm sewer system. Permittee comments suggest that referral for cleanup and redevelopment are the primary, and perhaps only means by which PCBs on private parcels may be addressed. However, Permittees are required to have authority to prevent or control these discharges into their storm sewers.

The requirements derive from federal NPDES permit application requirements (40 CFR § 122.26) for municipal separate storm sewer discharges. These require (NPDES permit) applicants “to have or establish legal authorities to control discharges to their MS4s.” Permit applicants must make a “demonstration that the applicant can operate pursuant to legal authority established by statute, ordinance or series of contracts which authorizes or enables the applicant at a minimum to: control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity.”

Permittees are ultimately responsible for the PCBs discharged to their MS4s, and the permit provides flexibility to select the right tool for the set of circumstances. In certain circumstances, the appropriate tool will be to exercise legal authority to compel actions to prevent PCBs discharged from private parcels from entering their MS4s. If Permittees can demonstrate that control measures have been implemented on private parcels to reduce PCBs loading to the MS4s, the acres treated or addressed by such control measures can count toward fulfillment of the C.11/12.c performance metrics. In order to make it clear that such exercise of authority to compel action by private landowners is a recognized part of achieving the performance metric, the language of C.11/12.c.ii has been edited as follows.

Permittees shall, within the permit term, implement or cause to be implemented control measures (treatment controls, diversion to wastewater treatment plants, redevelopment (provided GSI implemented in compliance with Provision C.3.b), enhanced operation and ~~treatment~~ maintenance controls, or other controls) to comply with the performance

Flexibility Theme 3 – C.11/12 requires implementation of treatment or GI controls or unsuitable control measures

Comment: *Permittee comments contain cost estimates to comply with C.11/12.c that run into the hundreds of millions of dollars for a single Countywide program. These cost estimates are based on the contention meeting the requirements of C.11/12.c would largely be accomplished through the construction and installation of treatment controls or green stormwater infrastructure (GSI) in the public rights-of-way of old industrial*

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areas. Such installation of GSI, Permittees content, would circumvent the developed green infrastructure plans by requiring substantial investment in old industrial areas, thus potentially redirecting resources from areas that would benefit from green stormwater infrastructure enhancing their community (e.g., disadvantaged and underserved neighborhoods) to areas that may or may not provide a beneficial reduction of PCBs from moderate and high loading areas. Permittee comments also suggest that diversion to wastewater treatment facilities is not under the control of the Permittee: In many areas of the county the local municipality does not operate the wastewater treatment plant and does not have the authority to require the wastewater treatment facility to accept stormwater runoff. Some Permittee comments suggest that the Permit should “stipulate that Permittees prioritize the installation of trash capture devices in old industrial areas with moderate levels of PCBs, and that contaminated sediment in storm drains and channels should be prioritized for removal and disposal.”

Response: The PCBs TMDL establishes a wasteload allocation for municipal stormwater Permittees, and the requirements of C.12.c form a necessary and important component of achieving the load reductions consistent with the TMDL wasteload allocation. Permittees have long been aware, through two decades of monitoring data, that PCBs are concentrated in old industrial areas. Despite this knowledge, Permittees have been reluctant to take the necessary steps and exercise their authorities to address the loading from these areas. Accordingly, Provisions C.11/12.c require Permittees to attend to these areas to reduce the PCBs loading from them.

Provisions C.11/12.c contain a performance metric expressed in acres of old industrial land use addressed or a corresponding load reduction but do not specify a means of compliance. Permittee comments contain cost estimates running to the hundreds of millions of dollars by assuming that compliance with C.11/12.c will largely be accomplished through installation of treatment controls in public rights-of-way. Implementation of treatment controls and possibly GSI will be a part of the solution to reducing PCBs loads from old industrial areas, but there are many more (less expensive) options available that may be, in aggregate, just as effective. We encourage Permittees to work rapidly toward developing the appropriate suite of control measures to implement themselves along with exercising their legal authority to compel action by owners of private properties discharging PCBs to the municipal storm drain system. We note that control measure implementation on private property compelled through the legal authority of Permittees would not be a cost borne by Permittees, but rather the owner of the private property where the PCBs are managed. Permittees claim that a large portion of the PCBs are coming from private properties so compelling private property owners to address this contamination will greatly reduce the costs borne by the Permittees themselves. For example, Permittees can require permits for discharges from private properties and can recoup costs associated with permits because these are not subject to Proposition 218 constraints on the collection of such fees.

The Permit provides flexibility for Permittees to choose the right solution to fit the circumstances. In fact, in developing the Permit requirements, Permittees have sought

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such flexibility. In this light, it is somewhat surprising that some comments urge the Water Board to stipulate that “Permittees prioritize installation of trash capture devices in old industrial areas or that contaminated sediment in storm drains and channels should be prioritized for removal and disposal.” Permittees are free to implement these measures as a priority if they so choose, and those measures will be credited according to their load reduction benefit. It is not necessary for the Permit to stipulate that they are a priority. Likewise, the observation that diversion to wastewater treatment facilities are not under the authority of stormwater permittees is not relevant. If Permittees can arrange for a wastewater treatment facility to accept the stormwater, then the load reduction or acreage credit will be realized. The Permit merely signals that load reductions through such an arrangement will be recognized but does not require that such diversion is established or even sought.

Requiring compliance with C.11/12.c does not constitute a requirement to circumvent the green infrastructure plans developed by Permittees. The Tentative Order contains a number of requirements throughout many provisions, and Permittees must comply with them all. In this respect, it is not appropriate or helpful to portray permit compliance as a “zero sum game” in which resources allocated for control measure implementation in old industrial areas to achieve C.11/12.c compliance must necessarily come at the expense of GSI implementation elsewhere. We also reject the contention that disadvantaged or underserved communities are better served through GSI installation in their neighborhoods rather than taking steps to reduce the PCBs discharged to the Bay that result in ongoing contamination of fish consumed by these same communities. Both GSI implementation and reducing PCBs concentrations in the fish they consume will benefit these communities. Permittees have obligations and permit requirements related to these and many other objectives, and Permittees need to attend to them all rather than present the false choice that attending to one prevents action on the other.

Master Response Identifier: C.11/12 – 2

Comment Identifiers: SMCWPPP comments 28, 29, and 271; San Jose comments 6, 7, 39, and 40 ACCWP comments a5 and 70; CCCWP comments 78 and 80, comment 6 jointly submitted by Oakland and San Jose, and City of Oakland comment 38

Provision No.: C.11.c and C.12.c

Comment: *Performance Metrics for C.11/12.c*

Permittee comments on C.11/12.c performance metrics include two major themes: First, Permittees object to the required submittal of an implementation plan for C.11/12.c in the 2023 Annual Report, which they feel leaves them not enough time to plan for these actions. Accordingly, Permittees request the requirements to be phased in over more time, so they are not required to begin implementation until they do more thorough planning and data collection. Second, Permittees request that the performance metric (acres of old industrial land use addressed) should be substantially reduced.

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Performance Metric Theme 1 – Allow More Time to Plan/Phase in Requirements

Comment: *The specific comments on this theme include the following:*

- *The submittal date for implementation plans three months after the effective date of the permit is too soon.*
- *Preparing the plans will require significant staff time and resources to develop such a detailed report or plan and schedule that includes maps of the areas where control measures are to be implemented, the acreage of these catchments, and a description of design and sizing features all control measures, treatment devices and stormwater diversion facilities implemented for each treated catchment.*
- *The permit should only require an annual submittal of a treatment plan for the acres of old industrial area shown to have elevated levels of PCBs by the monitoring conducted in the previous Water Year. The first plan would be submitted by March 31, 2023, for all areas found to be moderate from the date of permit adoption.*
- *The requirements should be phased-in over additional years and permit terms to allow enough time for permittees to:*
 - *Develop a long-term plan for old industrial areas that identifies (as feasible) the specific geographic areas projected to redevelop, considers realistic time horizons for redevelopment, the added potential benefit of progressive policies to address roadway frontages as part of redevelopment, efforts to control trash discharges, and enhanced efforts to further characterize drainages and identify source properties.*
 - *Gather additional monitoring data in old industrial areas to better delineate hot, moderate, and cold areas relative to PCBs concentrations and mass loadings.*
 - *Focus resources on working with property owners to attempt to identify all PCBs source properties in high and moderate areas and “turn off the tap” by referring or cleaning up these sources.*
 - *Pilot test new techniques such as PCBs detection dogs to help screen suspect locations and potentially enhance the success of source property identification efforts, as part of integrated PCBs source identification efforts that would include working with city inspectors to attempt to gain access to private properties as needed and other techniques in the PCBs toolbox.*
 - *Characterize PCBs concentrations in additional composite stormwater runoff samples collected from the bottom of selected urban catchments of interest, based on the potential to contain sources of PCBs.*

Response: We recommend making a modification to Provisions C.11/12.c.iii(1) for reporting the plans and schedules for implementing control measures in old industrial areas. We have revised the deadline for this reporting to March 31, 2023. This modification provides additional time to prepare these plans. We expect Permittees to use this additional time to prepare substantive plans containing the information required in these provisions. Allowing any more time than the modified deadline would further

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delay addressing the moderately contaminated old industrial areas as required by Provisions C.11/12.c. Additionally, Permittees should have established a foundation on which to build these plans based on work completed during MRP2. Water Board staff have been urging Permittees to address PCBs contamination in old industrial areas (the objective of Provisions C.12.c) since 2014, prior to the adoption of MRP2. Prior to MRP2, Permittees expressed a preference for programmatic approach for C.11/12 provisions in MRP2. This would have required Permittees to use the information already available at that time concerning the distribution of PCBs in the urban environment (solid evidence of moderate to high concentrations in old industrial areas) to develop robust implementation plans across the region to address these contaminated areas. Unfortunately, despite the prompt from Water Board staff, Permittees failed to develop **any** implementation plans for PCBs-contaminated portions of the MRP area during MRP2 development. Consequently, requirements were included in MRP2 for Permittees to develop these plans and identify areas of concern in every municipality. In addition, this lack of proactive implementation plan development led directly to the need to include specific PCBs load reduction requirements in MRP2.

Because Permittees did not proactively develop proposals for implementation plans for known areas of PCBs contamination during the development of MRP2, MRP2 contained the following requirements for identification of contaminated areas and planning for implementation:

The Permittees shall report in their 2016 Annual Report the list of watersheds and management areas where control measures are currently being implemented or will be implemented during the term of the Permit along with the specific control measures that are currently being implemented and those that will be implemented in these watersheds and management areas and an implementation schedule for these control measures. In addition to the list of watersheds and management areas, this report shall include:

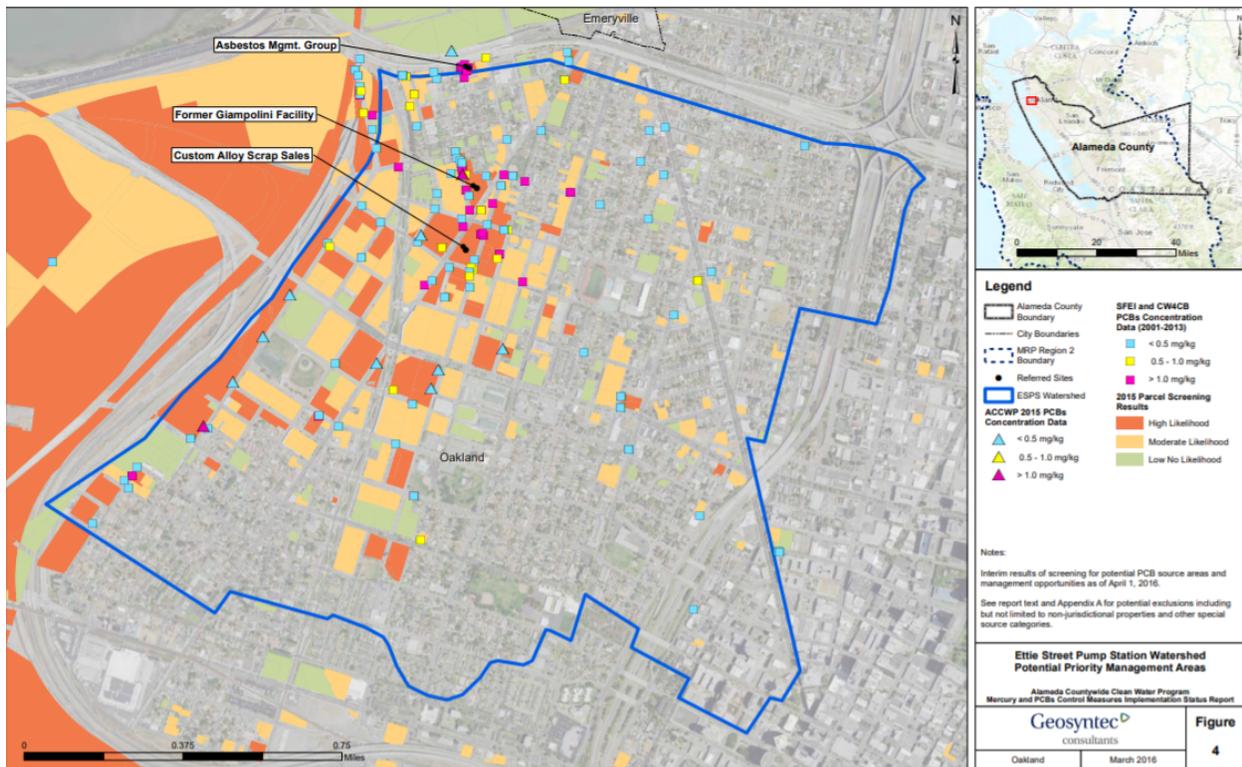
- a. The number, type, and locations and/or frequency (if applicable) of control measures;*
- b. A cumulative listing of all potentially PCB-contaminated sites Permittees have discovered and referred to the Water Board to date, with a brief summary description of each site and where to obtain further information;*
- c. The description, scope, and start date, of PCBs control measures;*
- d. For each structural control and non-structural BMP, interim implementation progress milestones (e.g., construction milestones for structural controls or other relevant implementation milestones for structural controls and non-structural BMPs) and a schedule for milestone achievement; and*
- e. Clear statements of the roles and responsibilities of each participating Permittee for implementation of pollution prevention or control measures identified under C.12.a.ii(2).*

In MRP2, this provision used the term “watershed management area” or WMA. However, it is clear from the information submitted by Permittees that watershed management areas were mainly in old industrial areas. In fact, the areas designated as

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“high interest” in the SCVURPPP (2016) reporting were defined as “*parcels, broader land areas, or stormwater catchments associated with old industrial land uses that have a relatively high likelihood of having elevated concentrations of PCBs (≥ 0.5 mg/kg) or mercury (>1.0 mg/kg) in street dirt, sediment from the MS4, or in stormwater runoff.*” Similar definitions were included in the 2016 reports from the other countywide programs. Further, the SCVURPPP report identifies 139 stormwater catchments of interest across multiple municipalities in Santa Clara County. The other countywide programs used different terminology but also identified WMAs and prepared maps of those WMAs in all the municipalities, and those WMAs are almost all in old industrial land use. Notice here that the concentration threshold was higher (0.5 mg/kg compared to 0.2 mg/kg) to identify WMAs in contrast to the threshold for old industrial implementation in MRP3. However, these WMA areas identified in 2016 should be candidates for immediate action since they have already been identified. The important point here is that Permittees already have a lot of information about the highest priority old industrial areas, and they have had this information since 2016, but have declined to pursue more aggressive action.

The figure below is just one of the dozens of similar maps prepared by the Permittees in March 2016. This is a map of a portion of Oakland showing mapped areas of high interest old industrial area, the concentrations of samples, and contaminated properties.



Notice how much information was known about the locations of “high likelihood” parcels. This map and dozens of other similar maps produced by Permittees in 2016 demonstrate that Permittees are not “starting from scratch” in planning for implementation in old industrial areas. On the contrary, there is a strong starting point from their earlier work. In 2016, Permittees made maps of the old industrial areas and

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had identified priority catchments and parcels likely to be contaminated, and they had information mapped about monitoring results in relation to these areas. Because of intensive sampling in old industrial areas starting in the early 2000s, MRP Permittees have known well before the adoption of MRP 2 that nearly all moderate and high PCBs contamination is found in old industrial land use. In fact, by March of 2016, Permittees had developed maps of watershed management areas (mainly old industrial areas) and had identified specific catchments as priorities for implementation.

By Fall of 2016, Permittees had submitted implementation plans for these priority catchments (SCVURPPP 2016, SMCWPPP 2016, ACCWP 2016, and CCCWP 2016). However, these plans were not comprehensive as they relied almost exclusively on: identification and referral of source properties, load reductions from the building demolition program (a requirement to which Permittees objected during the permit adoption process), incidental load reductions from green stormwater infrastructure implementation unrelated to PCBs, and small, incidental PCBs load reductions resulting from implementation of trash control devices (also not targeting PCBs). There is also ongoing street sweeping and some other operation and maintenance activities like inlet cleaning.

Despite the extensive knowledge of the old industrial watersheds, their degree of contamination, and the location of parcels likely contributing to this contamination, there has been little effort, if any, to address these parcels directly using municipal authority or to target these areas for other control measure implementation. We additionally note that in the green infrastructure component of Permittees implementation plans, there are very few, if any, green stormwater infrastructure projects that were selected in order to address contaminated parcels. Rather, the small PCBs load reductions from this activity is the result of redevelopment or implementation required by C.3 that was going to happen anyway. Permittees have made very little, if any, attempt to direct treatment control measures to the moderately contaminated old industrial areas. Up to now, their PCBs implementation approach has been passive in that it relies on load reductions achieved through actions by other entities (source property remediation, demolition sites, redevelopment, etc.). Permittees have claimed in comments that the majority of PCBs are coming from private parcels, and they may have convincing evidence of this from monitoring data collected over the last 20 years. However, Permittees have been unwilling to use their direct authority to compel private property owners to manage PCBs on-site to prevent transport to MS4s.

Permittee comments on the MRP 3 TO incorrectly assert or imply that proposed requirements for old industrial areas are so new and unexpected that Permittees will need several more years to plan in order to find these old industrial areas and make maps and collect more data and plan for implementation. Permittees already have information to support control measure implementation immediately, *at the very least* in the priority catchments identified in 2016.

The last part of the history that is relevant to this issue concerns the discussions that took place in early 2020 between Permittees and the Water Board in planning for MRP 3 requirements. At that time, Permittees expressed a preference for a “programmatic approach” to control measure implementation rather than the approach used in MRP 2 where a specific PCBs load reduction performance metric was used. A programmatic

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approach prescribes a level of effort performance metric for a particular control measure implementation program, in lieu of a load reduction performance metric. Water Board staff and management agreed to consider this approach as long as it included a control measure implementation program for old industrial areas. Unfortunately, and despite repeated reminders, Permittees failed to produce a program plan with performance metrics targeting these areas in draft proposals for the elements of a programmatic approach for MRP 3. Consequently, the Water Board was compelled to include the requirements for this element as C.11/12.c.

One of the Permittee comments on this theme illustrates the lack of proactivity and the unwillingness to use existing information to build implementation strategies.

*The permit should **only require an annual submittal** of a treatment plan for the acres of old industrial area shown to have elevated levels of PCBs **by the monitoring conducted in the previous Water Year**. The first plan would be submitted by March 31, 2023 for all areas found to be moderate from the date of permit adoption.*

Despite 20 years of data collection in old industrial areas and the compilation of information available in 2016 submittals, this comment suggests that none of that information exists and suggests that the Water Board should only be requiring implementation plans developed year by year based on monitoring results conducted *in this permit term* and only if they *happen to locate* elevated levels of PCBs. If this approach were adopted and if no monitoring were conducted or no moderately contaminated areas were located in a given year, then no implementation planning would be required for the subsequent year. Given the possibility of this perverse outcome, this is not an acceptable approach. Nor does it make use of the data collected and compiled in the past.

In order for a flexible (rather than “command and control”) regulatory approach to be effective, the regulated parties must use available information and proactively implement control measures without being forced to do so. In view of the history of PCBs implementation by MRP Permittees in old industrial areas, one must conclude that Permittees have approached PCBs implementation reluctantly, rather than proactively. Permittees knew about the high PCBs concentrations of building materials in demolition sites as early as 2011, but they did not initiate any efforts to address this source and vigorously objected to inclusion of requirements in MRP 2 to implement such a program. This program currently accounts for a large proportion of the credited PCBs load reductions.

Permittees have known for at least a decade, based on extensive monitoring data, that old industrial land use was contaminated with PCBs, and, by 2016, they had mapped the most likely parcels requiring attention in these areas (see the map above as just one of dozens of examples). In 2014 during discussions to plan the development of MRP 2, Permittees were encouraged to design, on their own initiative, a program of implementation to address priority watershed management areas (old industrial areas) for inclusion in MRP 2. Permittees declined to do so. Accordingly, the Water Board required these WMA plans as part of MRP 2 and also required specific load reduction performance metric as a direct result of this failure on the part of Permittees to take the

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initiative in planning implementation. Similarly, in early 2020, during early discussions between Permittees and Water Board staff to plan for MRP 3, Water Board staff urged Permittees to design a more targeted program of implementation (building off WMA efforts in MRP 2) to target the moderately contaminated portions of old industrial areas. Water Board staff clearly emphasized that inclusion of a program for old industrial areas was an explicit condition of considering a programmatic approach for C.12 implementation. Once again, Permittees declined to offer any implementation program for old industrial areas. Now that these requirements appear in the TO, Permittees request more time to “gather additional monitoring data in old industrial areas to better delineate hot, moderate, and cold areas relative to PCBs concentrations and mass loadings and work with owners of private properties to turn off the tap and to pilot test new PCBs detection techniques and do more planning for implementation of control measures.”

Allowing more time sweeps aside this history of delay and rewards inaction on PCBs implementation efforts in general and for old industrial areas in particular. Implementation planning for old industrial areas should have been an ongoing and continuous process since the beginning of MRP 2. That this has not happened and does not entitle Permittees to delay even further by allowing the planning to occur in the early phase of MRP 3. There is a significant amount of time between now and the scheduled due date for the reporting in the 2023 Annual Report. Permittees should use this significant amount of time to augment their 2016 WMA implementation plans with more recent information and meet the reporting requirements for Provision C.11.12/c in the TO.

Permittee comments on C.11/12.c indicate an understanding of what needs to be accomplished to develop implementation plans for old industrial areas. However, for the reasons stated above, it is inappropriate to allow yet more time to plan for implementation. Many Permittee commenters claim that most of the PCBs entering the MS4s are coming from private parcels. Permittees use this claim to argue against imposing requirements for control measure implementation in the public-right-of-way (see Flexibility Theme 2 – PCBs on private property vs. public rights-of-way). Permittees also suggest that PCBs on private parcels should be addressed either by referring these properties to the Water Board (when highly contaminated) or through ongoing redevelopment. However, Permittees have other options to accelerate the process to prevent these PCBs from entering the MS4. They can immediately exercise their authority to compel private landowners to take action. Doing so should not require the years long process claimed by Permittees to select a location to implement a control measure, designing, sizing and constructing the device. It simply requires Permittees to exercise their authority to regulate discharges into its stormwater system. If what Permittees claim regarding the importance of private parcels and PCBs is true, then many moderately contaminated private parcels can be addressed immediately in this fashion. C.11/12.c recognizes such enforcement as counting toward achievement of the performance metric.

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Performance Metric Theme 2 – Adjust Performance Metrics Downward

This theme can be accurately represented by the following comment.

Comment:

“Adjust performance metrics downwards to achievable, practicable level. The actions required over the MRP 3 permit term should focus on addressing a realistic portion of the amount of old industrial land use areas currently identified via monitoring (and not redeveloped or treated by green infrastructure) to have moderate levels of PCBs. MRP 3 should require that a plan be developed early in the permit term to describe the process and actions that permittees can implement or cause to be implemented to address PCBs on these properties over the permit term.”

Response: The portion of the comment requesting “that a plan should be developed early in the permit term” was addressed in the previous comment response section. The request by Permittees “to adjust the performance metrics downward to achievable, practicable levels, and to be focused on addressing a realistic portion of the amount of old industrial land use areas currently identified via monitoring to have moderate levels of PCBs” is related to claims about the amount of old industrial land use addressed below. In other words, Permittees have submitted arguments concerning what they have determined is the amount of old industrial land use with moderate levels of contamination. Permittees then request that they should only be required to address some portion of that area. See below for a response to that issue. We focus here on achievability and practicability. We address the claims about the amount of land use below.

Motivated, in part, by this comment we recommend reducing the C.11/12.c performance metrics for Alameda and Contra Costa Counties. Originally, the Tentative Order required Alameda County Permittees to implement control measures on 937 acres of old industrial land use and required Contra Costa Permittees to implement control measures on 1,119 acres of old industrial land use. The revised Tentative Order requires implementation on 664 acres of old industrial land use for both these Countywide programs. This amount of acreage is the greater of the performance metrics from the other two large Countywide programs (Santa Clara and San Mateo). The revised acreage eliminates the large disparity in level of effort among the Countywide stormwater management programs, yet still results in a substantial amount of control measure implementation (addressing 2,580 acres) as well as substantial estimated PCBs load reduction (467 grams/year). More information about the modification is provided in the Fact Sheet discussion for Provision C.12.c.

The expected scale of control measure implementation (2,580 acres throughout the region) required by Provisions C.11/12.c is very similar to the anticipated level of effort for Caltrans in the SF Bay Region, in which Caltrans will implement best management practices, including **treatment controls**, on approximately 11 percent of their 27,000 acres of right-of-way for a total of more than 2,900 acres (draft Caltrans permit). The scale of the C.11/12.c performance metric was selected, in part, based on the level of

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effort expected of Caltrans and also to make meaningful progress in achieving the mercury and PCBs TMDLs by addressing old industrial land use to reduce loads of mercury and PCBs. As noted in a previous response above, 25 percent of the more than 1,200 samples collected in old industrial areas have exceeded 0.21 mg PCBs/kg. This implies that roughly 25% (8200 acres) of the 33,100 acres of old industrial land use would be considered moderately contaminated. We are calling for control measure implementation on a substantial portion, but not all, of this area.

Compliance with the C.11/12.c performance metric will likely not require Permittees themselves to construct treatment facilities to treat 2,580 acres of old industrial land use. According to the arguments submitted by Permittees, the majority of PCBs-generating areas are on private parcels. Assuming this is true, this implies that the need for Permittees to construct treatment facilities or other control measures will be reduced in direct proportion to the degree to private property is the source of PCBs to MS4s. This is true because the pathway to achieving compliance with the performance metric will involve Permittees exercising their legal authority to compel private property owners to address the discharges coming from these properties. Permittees have several options in this regard. First, as explained previously, control measures implemented on private parcels to prevent PCBs from entering MS4s from those parcels can be counted toward achievement of the performance metric if this implementation is documented. Second, municipalities could establish permit conditions for private landowners (discharging to public ROW) requiring them to contribute to treatment controls in municipal ROWs that receive the discharges. Control measures implemented on private property and the control measures implemented in the public ROW would both be recognized as counting toward fulfillment of the MRP (C.11/12.c) performance requirements. Therefore, according to arguments submitted by Permittees concerning the distribution of PCBs-generating areas, the implementation burden could be reduced on Permittees and be distributed throughout the region to the private parcels which are contributing PCBs to the MS4. We emphasize again that Permittees are responsible for exercising their authority to compel private landowners to address these PCBs.

We have reduced the performance metric from 3,300 acres to 2,580 acres, combined for all Permittees. However, we conclude that it is not necessary to further reduce the performance metric as requested. Achievement of the 2,580-acre performance metric is not likely going to be achieved by Permittees constructing treatment facilities in the public rights-of-way. It will be achieved through a combination of treatment facilities and other control measures implemented by Permittees in the public rights-of-way as well as treatment facilities and other control measures implemented on private properties. The Permittees have a responsibility to compel control measure implementation on private property because they are responsible for the PCBs that enter the MS4s from private property.

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Amount of Remaining Old Industrial Land Use Theme

Master Response Identifier: C.11/12 – 3

Comment Identifiers: SCVURPPP-142, CCCWP-74,75, 78, ACCWP-67, and SMCWPPP-28

Provision No.: C.11.c and C.12.c

The four countywide urban runoff control programs have submitted comments citing their own analyses of the amount of remaining old industrial land use, the disposition of this land use in terms of private and public ownership, and the magnitude of PCBs contamination. These claims have been used as part of a general argument that the performance metric of C.12.c should be lowered. Because the nature of the claims and support for the claims are specific to the commenting entity, we will respond separately for the four countywide programs.

Santa Clara Urban Runoff Pollution Prevention Program (Comment SCVURPPP-142)**Comment:** *The TO currently requires SCVURPPP co-permittees to address 664 acres of old industrial/moderate areas during the permit term with 70% treatment efficiency. This level of effort is not feasible within the five-year permit term based on the high cost of treatment controls and the time it takes to plan and implement controls.*

Response: The claim about the level of effort not being feasible seems largely predicated upon the assumption that the performance metric must be met exclusively through treatment controls constructed and installed by the Permittee themselves. Provision C.12.c does not require the 664 acres to be accomplished exclusively through installation of treatment controls, which is clear from the language of the provision. Moreover, as has been previously discussed, a significant portion of the acreage (according to commenting Permittees) is on private lands. These acres may be credited as addressed if Permittees exercise their authority to compel action by private landowners. This will reduce the implementation burden on municipalities substantially if the claims about the role of private parcels is correct.

The comment presents the results of a screening study of old industrial land use to argue that the level of effort represented by the performance metric (664 acres) exceeds the amount of moderately-contaminated old industrial land use remaining in Santa Clara County. The comment then provides the results of a screening procedure of Santa Clara County old industrial land use that concludes that of the 5,676 acres of old industrial land use not redeveloped or treated with GSI since 2002, only an estimated 230 acres were confirmed as moderately contaminated and an additional 140 acres as possibly moderately contaminated. The information submitted in the comment related to the screening procedure is not sufficient to support the conclusions stated in the comment that only up to 370 acres of old industrial land use in Santa Clara County could be considered moderately contaminated.

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First, according to the analysis, the 72 catchment-scale stormwater samples were each associated with about 22 acres of land use. This means that the contamination status of over 1,500 acres of land use was screened based on these 72 stormwater samples. The comment does not provide sufficient details to explain how stormwater data were used to establish that the catchment area represented by the stormwater sample was above or below the 0.2 mg/kg threshold associated with moderate contamination. The comment refers to a screening procedure, but there is no explanation as to how these 1,500 acres were evaluated. Moreover, drawing conclusions about all of the parcels contributing to a stormwater monitoring location for a single storm event is not a sound procedure based on what has been learned about the variability of contaminant loading and concentrations in different storms. Thus, results from one storm cannot be considered definitive. Depending on the source release characteristics and the size of the storm event, it is not possible to rule out the presence of moderate contamination in these catchments. For example, the storm sampled may not have resulted in mobilization of PCBs from the source area in the catchment because of the storm intensity, antecedent conditions, or the time of year. And, stormwater from cleaner portions of the catchment could have diluted the influence of moderately contaminated portions of the catchment. There is no information provided in the comment that allows for an evaluation of the soundness of the way the data were used or how the data variability was addressed. Without this information, the soundness of the screening procedure methods cannot be ascertained, and the conclusions drawn from the procedure cannot be fully evaluated. Accordingly, the information submitted in the comment relative to the screening procedure is not sufficient to support the conclusions stated in the comment.

Similarly, the same lack of transparency in the screening approach using the 372 sediment samples prevents the evaluation of the robustness of the conclusions drawn from these data. The information submitted in the comment is not sufficient to support the conclusion of the screening procedure applied to the sediment samples. These 372 sediment samples represented about 1,100 acres of old industrial land use. The comment states that the screening procedure associated each sediment sample with parcels adjacent to the public ROW sampling location or immediately upstream of the sampling location. However, the comment does not contain any information as to how the acres were determined to be low, moderate or high PCBs-generating areas. Rather, the comment simply states that a screening procedure was used along with conclusions concerning the results. The information submitted in the comment relative to the screening procedure is not sufficient to evaluate the soundness of the procedure, and the submitted information does not adequately support the conclusions stated in the comment.

Third, based on the screening procedures, the comment states that only 9% of the old industrial area screened “appears to generate moderate to high levels of PCBs.” The comment then applies this 9% ratio to the 2,004 acres not yet screened after subtracting out 600 acres for which trash treatment controls are in place. Applying this ratio, the

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comment reports an estimated additional 140 acres of moderate to high PCBs-generating old industrial land use.

The screening procedures described in the comment have likely underestimated the moderately contaminated old industrial land use area in Santa Clara County. First, the information submitted in the comment relative to the screening procedure is not sufficient to evaluate the soundness of the procedure, and the submitted information does not support the conclusions stated in the comment. For example, there is no justification supplied in the comment for applying to unscreened areas the 9% ratio for moderate contamination. Due to the lack of transparency in the explanation of screening methods, it is not possible to evaluate the soundness of the 9% ratio obtained for the screened areas. The results reported in the comment are notably inconsistent with the distribution of PCBs concentration in old industrial land use throughout the Bay Area. The comment reports on the results of a screening analysis suggesting that only 9% of Santa Clara County old industrial land use can be characterized as moderate to high PCBs-generating, but 25% of the 1,200 samples collected in old industrial land use throughout the region have a concentration above 0.21 mg/kg. Based on the concerns about methodology described above, Water Board concludes that a more realistic and supportable value for the proportion of moderately contaminated old industrial land use is 25%. Applying this ratio to the 4,723 acres of old industrial land use claimed to be remaining yields a value of 1,180 acres, which is a better estimate of the old industrial land use in Santa Clara County likely to be moderately contaminated (> 0.2 mg PCBs/kg). Because the comment did not provide adequate support for the claimed amount of old industrial land use, we will not make the modifications to C.12.c requested in the comment. The performance metric for Santa Clara County to implement or cause to be implemented control measures to address 664 acres of old industrial land use is appropriate. Additionally, we note that areas with PCBs concentrations less than 0.2 mg PCBs/kg still represent PCBs concentrations greater than those found in the Bay margin. Thus, these areas contribute to ongoing contamination and merit control.

Alameda Countywide Clean Water Program (Comment ACCWP - 67, 68)

Comment: *Comments 67 and 68 have been condensed as follows. ACCWP performed a desktop analysis of stormwater treatment opportunities in old industrial areas and concludes that the estimated amount of old industrial land use in Alameda County subject to control measure implementation is 4,869. The comment requests that the permit should be revised to incorporate a “reasonable level of effort” as the performance metric for C.12.c. The comment states that the “reasonable level of effort” is to limit implementation only to areas that have been identified as moderately contaminated according to screening procedures used by Alameda County. The comment states that only 124 acres have been currently identified as moderately contaminated old industrial land use in the county. The comment suggests that additional moderate areas would be addressed as they are identified through the C.12.b monitoring process. The comment also claims that sediment data collected in old industrial areas throughout the MRP area*

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show that approximately 15% of samples are in the moderate range, and that this suggests that an additional 393 acres (15% of the 2,620 acres to be screened as required by Provision C.12.b) may be found to be moderate through ongoing monitoring.

ACCWP comments also state that treatment control measures should not be required to be implemented on areas that do not have elevated levels of PCBs, and that building stormwater treatment facilities on public parcels or ROW with no or low PCBs will not meet this objective. Areas should be found to have an elevated level of PCBs and to drain into the ROW prior to planning treatment for the area.

Response: In response to the last portion of the comment, we have already explained how C.12.c does not “require treatment control measures” and that the provision provides flexibility in achieving the performance metric (see response to Comment SCVURPPP-142). The figure shown above for Oakland (submitted in 2016) by ACCWP shows several high priority parcels already identified for that one portion of a single city. Permittees have already established a solid foundation for taking immediate implementation action, including exercising direct use of municipal authority on previously identified high priority parcels.

The comment cites an estimate for the total amount of old industrial land use in Alameda County as 12,760 but then presents a series of claims seeking to reduce the amount subject to any implementation requirements. There are several problems with the analysis presented in the comment and the conclusions drawn thereon. We will go through each in turn.

First, the comment suggests that 2,400 acres should be subtracted from this total because these areas have been monitored and shown to have low PCBs. The comment does not include any substantiating information of this figure in comments on the tentative order, but did include the following table as part of comments on the administrative draft. There was no information presented describing how the analysis was conducted, however.

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Table 1. Old Industrial Area Monitored and Found to be Low PCBs (<0.2 mg/kg)

Permittee	Old Industrial Parcel Area Adjacent to Samples with Low PCBs (acres)	Old Industrial Area in a Watershed with Maximum Result of <0.2 mg/kg PCBs (acres)
Alameda	-	-
Alameda County	-	14
Albany	0	3
Berkeley	32	141
Dublin	-	-
Emeryville	8	-
Fremont	202	648
Hayward	117	148
Livermore	-	-
Newark	-	110
Oakland	115	215
Pleasanton	-	-
San Leandro	60	472
Union City	-	116
Alameda County Total	534	1,866
Old Industrial Area Monitored and Found to be Low PCBs (acres)		2,400

However, the comment did not provide any description of the methods by which these numbers were calculated. One must, therefore, draw inferences from the information presented in the table. First, the table suggests that 534 acres of old industrial land use should be considered low PCBs because this is the sum of the parcel areas adjacent to a sediment sampling location containing low PCBs. However, there is no information provided to confirm that this is a sound assumption. For example, if a parcel drains to the west, and the sediment sample taken adjacent to that parcel was taken on the east side of the parcel, then the low concentration in this sediment sample provides no definitive information as to the concentration on the parcel. Similarly, some parcels may contribute PCBs to the MS4 through direct connections to the storm drain network, and this would not be ascertained through a surface sample. The table also asserts that 1866 acres of old industrial land use should be considered as having low PCBs because this is the watershed area in which the maximum result is less than 0.2 mg/kg. This cannot be relied upon as definitive without much more information. For example, in the city of Fremont alone, 648 acres of old industrial land use were excluded using this approach. One does not know if this claim is based on one sample, two samples, or many more. The legitimacy of the claim is wholly dependent on how well the available data represents the area in question and the quality of the spatial coverage. There is no information in the comment letter to support the claim that 2,400 acres has been reliably determined to be “low PCBs areas.” Rather, the comment simply *states* that a screening procedure was used along with conclusions concerning the results. The information submitted in the comment relative to the screening procedure is not sufficient to

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evaluate the soundness of the procedure, and the submitted information does not adequately support the conclusions stated in the comment.

The comment also asserts that 1,823 acres should be removed from the tally of Alameda County old industrial land use because it is deemed “non-jurisdictional.” The properties in this category are Lawrence Berkeley National Lab (LLNL), Coast Guard Island, Alameda Naval Air Station, and Caltrans ROW.³² The comment also claims that an additional 769 acres of “railroad parcels” should be excluded from the tally. It is not possible based on information provided to confirm if these “non-jurisdictional” or railroad parcels do not drain to MS4s. Therefore, from the information provided, the Water Board cannot accept the assertion that the amount of Alameda County old industrial land use should exclude all or any of these so-called “non-jurisdictional” or railroad parcel areas. The Permittees are responsible for PCBs in their MS4s regardless of sources. The type of sources may affect the appropriate control action (e.g., source control or treatment control). Therefore, it is not appropriate to exclude these areas from the total amount of old industrial land use in Alameda County.

The comment requests that the performance metric for Alameda County should be limited to the 124 acres of area “currently identified (through Alameda County’s screening procedures) as moderately contaminated.” The comment also suggests that the permit should require implementation on additional moderately contaminated areas only as they are discovered through monitoring associated with Provision C.12.b. The comment estimates this amount as 15% of the amount of old industrial land use required to be investigated by Provision C.12.b. First, the comment erroneously cited 15% as the proportion of old industrial land use considered moderately contaminated according to data collection. The value cited in the SCLRA (2021, Appendix B Table B-1) report states that the 25th percentile of data collected in **old industrial land use** is 0.21 mg PCB/kg. This implies that greater than 25% of this land use will have concentrations greater than 0.2 mg PCBs/kg. We also note that the comment asserts that 2,577 acres of old industrial land use have been addressed through treatment. Assuming the time period over which this treatment was installed is approximately 15 years, this suggests that approximately 860 acres have been addressed through treatment during each of the three five-year periods during this time. This comment suggests that the appropriate level of effort for MRP3 is roughly 1/7th the pace of treatment implementation over the previous 15 or so years. The performance metric for Alameda County for Provision C.12.c stated in the revised Tentative Order (664 acres) is somewhat less than the average pace of treatment control implementation over the last 15 years. Moreover, as previously explained, the performance metric can be met through means other than treatment control installed by Permittees in the public rights-

³² We note that federal facilities “engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants . . . shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity. . . .” 33 U.S.C. § 1313.

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of-way. Therefore, we will not modify the performance metric to what Alameda County claims is the amount of currently identified moderately contaminated land use area (124 acres). The conclusions drawn from the screening study leading to this amount of land use are not supported by evidence. This amount of land use is very small in comparison to and inconsistent with the expected proportion (25%) of moderately contaminated old industrial land use. The small scale of implementation resulting from addressing just 124 acres is much smaller than the pace of implementation over the previous 15 years and is insufficient to make meaningful progress to attain the PCBs TMDL wasteload allocations.

Finally, the comment's proposal to link future control measure implementation in old industrial areas to the outcome of sampling to locate source properties is not sound from a permitting perspective. Because Permittees are not specifically required to conduct sampling on the 2,620 acres to be investigated for compliance with C.12.b, linking implementation requirements to the outcomes of this sampling creates a perverse incentive to locate source properties in such a fashion that does not rely on sampling. This is inappropriate. It may be the case that Permittees could comply with the requirements of C.12.b in such a fashion as to conduct very little monitoring. There is no specific amount of monitoring required, and the style of monitoring to locate or confirm source properties may not be effective to locate moderately contaminated areas. Further, the pace of accomplishing the source property investigations is up to the Permittee as long as the performance metric is met by the end of the Permit term. Therefore, Permittees could comply with the requirements of C.12.b in such a fashion as to conduct very little sampling and, thus, not discover any additional moderately contaminated old industrial areas subject to control measure implementation per Provision C.12.c.

San Mateo Countywide Water Pollution Prevention Program (SMCWPPP-28)

Comment: *The performance metrics in the Tentative Order should be adjusted downwards to achievable, practicable levels. We request that the actions required over the MRP 3 permit term focus on addressing a realistic portion of the about 300 acres of old industrial land use areas currently identified via monitoring (and not redeveloped or treated by green infrastructure) to have moderate levels of PCBs. MRP 3 should require that a plan be developed early in the permit term to describe the process and actions that permittees can implement or cause to be implemented to address PCBs on these properties over the permit term.*

Response: Planning for control measure implementation should be completed or well underway as part of development of the old industrial area program. The contamination in old industrial areas has been recognized for over a decade. Allowing yet more time to plan and delay action is not appropriate. We also respond to this suggestion more substantially in the response to *Comment C.11/12.c Performance Metric Theme 1 – Allow More Time to Plan/Phase in Requirements*. The comment does not contain information to substantiate the claim that only 300 acres of old industrial land use has

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been identified as having moderate levels of PCBs (> 0.2 mg PCB/kg). Based on the regionwide data collection, one would expect that about 1,100 acres would have moderate levels of PCBs (25% of the 4,450 acres of San Mateo County's old industrial land use). Moreover, information previously submitted by SMCWPPP demonstrates that, even as early as 2016, the spatial scale of moderate to high PCBs contamination in San Mateo County was understood to be much greater than 300 acres.

SMCWPPP submitted, as part of its 2016 Annual Report, information about identified watershed management areas (WMAs) in the county (SMCWPPP 2016). In this report, SMCWPPP identified high interest parcels³³ and catchments of interest, which are catchments with a high density of high interest parcels. The number of high interest parcels reported was 1,579 and 4,004 were deemed potential high interest parcels. The report also included a map of all 1,579 high interest parcels. However, the screening concentration used (0.5 mg PCBs/kg) is much higher than the definition of moderate contamination used for Provision C.12.c so the high interest parcels and catchments of interest reported in 2016 are an underestimate of the extent of moderate contamination in San Mateo County. Nevertheless, the report notes that "110 catchments with high densities of high interest parcels, designated catchments of interest" were identified. The report explains that "a confirmed WMA is a catchment with two or more elevated sediment samples (≥ 0.5 mg PCBs/kg) and a catchment with a single sediment sample elevated for PCBs is designated a potential WMA. The remaining catchments ($n = 100$) are designated remaining catchments of interest." The measured PCBs concentrations in the 10 confirmed or potential WMAs ranged from 0.57 mg PCBs/kg to 192 mg PCBs/kg. Further, the total watershed area for these 10 catchments was over 3,600 acres, and the total area of the high interest parcels contained within just these catchments totaled 511 acres. The Provision C.12.c performance metric for San Mateo County is 445 acres, which is very close to the total area of the high interest parcels contained in these 10 catchments of interest reported in 2016. We emphasize again that these 10 catchments were identified in 2016 as having PCBs concentrations ≥ 0.5 mg PCBs/kg. The number of catchments with concentrations ≥ 0.2 mg PCBs/kg would necessarily be greater. Additional monitoring data in San Mateo County have likely been collected since 2016 to determine if any of the other 100 catchments of interest have moderate PCBs concentrations. However, even if no additional information is available, SMCWPPP has a strong basis to begin addressing the high interest parcels already identified. SMCWPPP can immediately repeat their screening procedures on their database of monitoring data (updated with more recent sampling) using the 0.2 mg PCBs/kg concentration and identify catchments of interest as well as the high interest parcels contained within them. This is not a time-consuming process and could be done immediately.

³³ Parcels, broader land areas, or stormwater catchments associated with land uses (most commonly old industrial, electrical, recycling, railroad, and military) that have a relatively higher likelihood of having elevated concentrations of PCBs (≥ 0.5 mg/kg) in street dirt, sediment from the MS4, or in stormwater runoff (particle concentration). These areas generally have not been redeveloped and do not contain stormwater treatment facilities.

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Contra Costa County Clean Water Program (CCCWP-74,75, 78)

Comment: *The portions of comments 74, 75, 78 on this issue have been condensed as follows. CCCWP performed a desktop analysis of stormwater treatment opportunities in old industrial areas and concludes that the estimated amount of old industrial land use in Contra Costa County subject to control measure implementation is 2,661 acres (instead of the 11,200 acres cited in the Fact Sheet and Tentative Order based on information submitted by this same Permittee in Fall 2021). This conclusion is based on a calculation in which the 14,139 acres of old industrial land use was reduced by subtracting areas treated (934 acres), referred source properties (78), properties discharging directly to the Bay (1838), old industrial area monitored and determined low PCBs (3,516), Non-jurisdictional areas (4,792), and apparent railroad parcels (320). Permittees are responsible for discharges from their MS4s regardless of the source.*

The comment also claims that sediment data collected in old industrial areas throughout the MRP area show that approximately 15% of samples are in the moderate range such that approximately 399 acres of the remaining 2,661 acres may be found to be moderate through the ongoing C.12.b monitoring. The comment then requests to reduce the remaining old industrial area value for Contra Costa County in Provision C.12.c.i to 2,661 acres. The comment also suggests that a reasonable treatment area to begin with in Contra Costa County would be the old industrial area that has been identified with moderate levels of PCBs to date (77 acres). At the beginning of the permit term, Permittees will start the project development process to treat the 77 acres (10 sites) known to have moderate to high levels of PCBs concentrations.

The comment also states: “as directed by the Regional Water Board during the Tentative Order workshop, please revise the permit to incorporate a reasonable level of effort for MRP 3.0, given the cost of compliance, the limited staff resources available (both Permittee and RWQCB staff), and the ongoing economic impacts due to COVID.”

Response: First, we have reviewed the Board member comments in the transcript to search for comments matching the description cited in the comment, but we do not find any such direction, from the Board as a whole, related to the permit in general and certainly not related to Provision C.12.c in particular.

The analysis cited by CCCWP to recalculate the amount of old industrial land use is identical to that performed by ACCWP. See the response to Alameda Countywide Clean Water Program Comments 67 and 68 above explaining in detail why the analysis cited in the CCCWP comment is not factually supported and inconsistent with available information. In fact, there was no explanation of how 3,516 acres in Contra Costa County were determined to have low PCBs levels. The comment simply asserts this as a fact without evidence. The comment appears to rely on a methodology similar to that used for the corresponding Alameda County claim about low PCBs areas. The Contra Costa comment, like the Alameda comment, simply *states* that a screening procedure was used along with conclusions concerning the results. The information submitted in

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the comment relative to the screening procedure is not sufficient to evaluate the soundness of the procedure, and the submitted information does not adequately support the conclusions stated in the comment. Accordingly, it is not appropriate to make the adjustment in the remaining acres of old industrial land use in Contra Costa County. We also note that CCCWP, like ACCWP, cites an incorrect value for the proportion of old industrial land use samples in the moderate PCBs concentration range according to the existing data set of over 1,200 samples in this land use type. The correct number is 25%, not the 15% cited in the comment (SCLRA 2021, Table B-1).

There is a high probability that the amount of moderately contaminated old industrial land use in Contra Costa County is far greater than the 476 acres (77 known plus 399 presumed to be identified in the future³⁴) cited in the comment. The total amount of old industrial land use in Contra Costa County is at least 11,000 acres. If the proportion of the 1,200 PCBs samples collected in Bay Area old industrial land use exceeding 0.2 mg PCBs/kg (25%) is applied to this amount of Contra Costa County old industrial land use area, then one expects that approximately 2,700 acres of this area will be moderately contaminated (≥ 0.2 mg PCBs/kg). We are not aware of any evidence that the overall regional old industrial land use PCBs concentration distribution (see SCLRA 2021) would be dramatically different than the PCBs concentration distribution in Contra Costa County. As previously indicated, both the total amount of old industrial land use and the presumed moderately contaminated amount of this area have been dramatically underestimated in the analysis cited in the comment. These underestimates result from the unwarranted reduction of the amount of old industrial land use through a logically flawed methodology as well as the application of an incorrect fraction of moderately contaminated land use expected in this type of land use. We emphasize again that if this moderate level of contamination occurs on railroad properties, non-jurisdictional areas or other types of private parcels and if these private parcels contribute PCBs to the MS4 in Contra Costa County, the Permittees are responsible for addressing these areas. Therefore, it is not appropriate to exclude these areas from the total amount of old industrial land use in Contra Costa County as these are potentially areas subject to control measure implementation.

References

ACCWP 2016. ***Mercury and PCBs Watershed/Management Areas and Control Measures***. Prepared by the Alameda Countywide Clean Water Program. September 28, 2016.

CCCWP 2016. ***Mercury and PCBs Watershed/Management Areas and Control Measures***. Prepared by the Contra Costa County Clean Water Program. September 26, 2016.

³⁴ The comment claims that an additional 399 acres may be found in the remaining 2661 acres of old industrial land use.

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SCLRA 2021. **Source Control Load Reduction Accounting for Reasonable Assurance Analysis**. Prepared for Bay Area Stormwater Management Agencies Association. October 28, 2021.

SMCWPPP 2016. **Identifying Management Areas and Controls for Mercury and PCBs in San Mateo County Stormwater Runoff**. Prepared by the San Mateo Countywide Pollution Prevention Program. September 30, 2016

SCVURPPP 2016. **PCBs and Mercury Control Measures Plan for the Santa Clara Valley**. Prepared by the Santa Clara Valley Urban Runoff Pollution Prevention Program. September 30, 2016.

Master Response Identifier: C.11/12 – 4

Comment Identifiers: Baykeeper-8

Provision No.: C.11 and C.12

Comment: *C11/12 Provisions in Relation to TMDL Implementation Requirements*

According to Provision C.11, during MRP 2, Permittees were able to meet the San Francisco Bay Mercury TMDL implementation plan's interim loading milestone by February 2018 of 120 kg/yr. The next deadline is attainment of the regionwide, urban runoff wasteload allocation of 82 kg/yr by February 2028. Unlike for mercury, Provision C.12 does not include an assessment of wasteload reductions made during MRP 2. If this information exists, the Regional Board should add it to Provision C.12.

Response: The comment is incorrect, neither Provision C.11 nor C.12 includes an assessment of wasteload reductions made during MRP 2. Rather, the preamble paragraph before C.11.a provides an estimate of the magnitude of expected mercury load reductions during MRP 3 (approximately 10 kg/yr). Additionally, this paragraph notes that, according to work conducted by SFEI in 2015, the interim loading milestone from the mercury TMDL (120 kg/yr) has been achieved. More information about this can be found in the Permit Fact Sheet section for C.11. The preamble paragraph preceding C.12.a also includes an estimate of the magnitude of expected PCBs load reductions during MR3 (revised to approximately 1.47 kg/yr). In contrast to the mercury TMDL, the PCBs TMDL does not contain an interim loading milestone, and that is why this discussion is not included in this paragraph. However, Finding C.12-5 cites the same 2015 SFEI report from which the mercury loading estimate was obtained. The 2015 loading estimate for PCBs was on the order of 19 kg/yr, and the estimated PCBs load reductions realized during MRP 2 was about 3 kg/yr.

Comment: *Under the San Francisco Bay PCBs TMDL implementation plan, Permittees are allotted 1.6 kg/yr waste load allocation and 14.4 kg/yr of the regionwide total by 2030. During MRP 3 when implementation of control measures for mercury and PCBs will determine whether or not the mercury and PCBs TMDLs' urban runoff wasteload*

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allocations are ultimately achieved, it is critical that Provisions C.11 and C.12 not be included in Provision C.1's Safe Harbor. Inclusion in the Safe Harbor disincentivizes Permittees to commit substantial resources to addressing mercury and PCBs, since they will be deemed in compliance by following Provisions C.11 and C.12's requirements regardless of actual compliance with receiving water limitations.

Response: Consistent with State Board Orders 2015-0075, as amended by 2021-0052-EXEC, and 2020-0038, the proposed permit allows Permittees to be deemed in compliance with the receiving water limitations for mercury and PCBs while implementing the rigorous, accountable, and transparent requirements of C.11 (mercury controls) and C.12 (PCBs). Experience implementing PCBs and mercury control measures in the first two terms of the MRP, monitoring data, and the rigorous studies, evaluations, modeling, and mathematical analyses inform the design of the programmatic approach used in MRP 3. Permittees use a load reduction accounting system (see Provisions C.11.a and C.12.a) to estimate mercury and PCBs load reductions for each type of programmatic control measure consistent with an expected level of control measure implementation intensity. Permittees are required to track and report on their level of implementation through enforceable control measure specific performance metrics that are associated with the estimated load reductions.

The requirements expressed in Provisions C.11 (mercury) and C.12 (PCBs) are consistent with the mercury and PCBs TMDLs. The PCBs TMDL directs Permittees "to implement technically feasible, effective and cost-efficient control measures to attain allocations." There is also a possible pathway for the Water Board "to review and revise the allocations and these implementation requirements as part of adaptive implementation" if the allocations cannot be achieved despite implementation of technically feasible, effective, and cost-efficient control measure implementation.

Development and implementation of controls for certain pollutants, such as mercury and PCBs, is challenging. The Fact Sheet section for C.8.f explains how PCBs and mercury are distributed in watersheds and transported during storm events and the variability of the Bay Area's climate. Monitoring data collected over the past two decades allows us to better understand the relationship between control measure implementation and load reductions and thereby establish a solid technical foundation for the control measures required in Provisions C.11 and C.12. The available monitoring data provide a clear picture about how PCBs and mercury are distributed in Bay Area watersheds and what type of watersheds contribute more or less pollutant load. We understand that the highest PCBs-yielding watersheds (mass loading of PCBs per unit area) are concentrated largely along the shore of San Francisco Bay. These high yielding watersheds are generally old industrial areas. These yields were estimated through models calibrated and validated with the monitoring information from those dots on the map along with information about hydrology and sediment transport. The knowledge gained through monitoring and modeling is the foundation for the programmatic control measure approach employed in this permit term to reduce PCBs and mercury loads.

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Because we now know that old bayside industrial lands are generally where we find higher PCBs concentrations, this helps to refine the control measures in the permit. Thus, we have required Permittees to search for contaminated source properties (see Provisions C.11/12.b) in old industrial areas and to focus implementation of control measures in the moderately contaminated portions of old industrial land use (see Provisions C.11/12.c). Finding contaminated properties and addressing ongoing moderate contamination in these formerly old industrial bayside areas is an important element in reducing PCBs loads to the Bay. Contrary to the comment's assertion, complying with Provisions C.11 and C.12 will require Permittees to commit substantial resources and significant actions, not less.

Comment: *Currently, 2030 is the deadline for achieving the PCBs wasteload allocation, and it is entirely inappropriate for the Regional Board to condone PCB control measures that will not achieve this deadline and unacceptable for the PCB control measures to be included in Provision C.1's Safe Harbor. The Regional Board should be pushing Permittees to meet waste allocation deadlines, and should not effectively eliminate the deadline for PCBs reductions during the term of MRP 3.*

Response: When the mercury and PCBs TMDLs were adopted, the Board recognized the difficulty of attaining the wasteload allocations in 20 years given the uncertainty with the availability and effectiveness of control measures. That is why the TMDL implementation plans included adaptive implementation components wherein the Board would review the TMDLs and consider extending the compliance timeline and/or revising the wasteload allocations upon a demonstration that Permittees were implementing all technically and economically feasible and cost-effective control measures. Unfortunately, there is no "magic bullet" control measure that Permittees can employ to rapidly achieve large PCBs or mercury load reductions. Finding source areas and implementing effective controls is hard work and takes time. The load reductions that result from these activities, while important to Bay water quality, are modest. However, the requirements in Provision C.12 are consistent with the TMDLs' requirement for updated assessments of control measures and put the Permittees on a path to compliance. We explained in our response to the previous comment (about the appropriateness of including Provision C.12 in the C.1 Alternative Compliance section) just some of the information on which this updated assessment was performed. There is a fuller explanation in the Fact Sheet, particularly the section on C.12. Because the twenty-year TMDL implementation schedules for wasteload allocation will arrive in 2028 (mercury) and 2030 (PCBs), the Water Board will soon be reviewing the wasteload allocations and implementation requirements as part of adaptive implementation. Such a review includes looking at any demonstration that the allocations cannot be achieved despite implementation of technically feasible, effective, and cost-efficient control measure implementation. The Water Board is not now condoning any extension of the TMDL deadlines, but merely recognizing that it is a possibility recognized under the TMDL if sufficient demonstration is made supporting an extension. Permittee performance during MRP3 in accomplishing the Provision C.11 and C.12 will be a

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significant factor in determining if the allocations should be modified or if more time should be allowed for their achievement.

Comment: *More specifically, as written, Provision C.11.f and C.12.h's monitoring requirements fail to comply with State Board Order WQ 2020-0038's minimum monitoring requirements, which require adaptive management. The Regional Board must revise Provision C.11.f and C.12.h to require low impact development ("LID") monitoring results collected under Provision C.3.d be used to recalibrate the Permittees' reasonable assurance analyses ("RAAs") produced under MRP 2 to validate estimated load reduction benefits for mercury and PCBs.*

Response: The monitoring requirements for pollutants of concern and other constituents are contained in Provision C.8, and not C.11/C.12. Provisions C.11.f and C.12.h concern preparing implementation plans for mercury and PCBs, respectively. The expected load reductions achieved through LID, i.e., green stormwater infrastructure (GSI), implementation for the entire region by 2025 total 0.1 kg/yr (see Fact Sheet discussion under C.11.e) of mercury out of an expected load reduction of 10 kg/yr. This constitutes about 1% of the total expected load reductions. For PCBs, the expected GSI load reductions to be achieved by the end of MRP 3 are about 0.2 kg/yr.

The RAA modeling applications used to estimate these expected load reductions rely on a number of inputs, all of which have uncertainty associated with them. It is highly unlikely that the RAA estimates can be meaningfully improved by re-running the analyses with LID monitoring data required through MRP 3. The comment suggests using mercury and PCBs performance data collected under Provision C.3.d to recalibrate RAA models. However, Provision C.3.d is not requiring new mercury or PCBs performance data. More importantly, the LID performance data used for RAA modeling already provide a sound representation of LID pollutant removal behavior. Given the scale of modest expected GSI load reductions in relation to the magnitude of load reduction, the uncertainties in the modeling outputs with respect to these modest load reductions, and the lack of new PCBs or mercury LID data, requiring recalibration of these RAA models for LID performance is not a sound use of Permittee efforts in MRP 3.

Using implementation experience, monitoring data, and special studies to adapt control measure implementation approaches for PCBs and mercury is an explicit element of the POC strategy for the MRP. Starting with the first MRP, the POC strategy was explicitly based on a phased, adaptive approach whereby control measures were tested and information gathered to allow for adaptation. Monitoring data is a key component of this adaptive, phased implementation. Most of the PCBs provisions in MRP 3 are the result of adaptive implementation informed directly from monitoring information, pilot control measures, or special studies accomplished through earlier MRP efforts.

PCBs and mercury data in bedded sediment (i.e., in storm drains or street sediment) and flowing stormwater have been collected through the RMP and also by the

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stormwater programs over the last two decades. Through the RMP and Permittee sampling, over 100 Bay Area watersheds have been sampled. In these watersheds, over 1,500 sediment samples have been taken, and samples have been taken at over 140 locations for flowing stormwater. These monitoring data provide a clear picture about how PCBs and mercury are distributed in Bay Area watersheds and what type of watersheds contribute more or less pollutant load. The highest PCBs-yielding watersheds (mass loading of PCBs per unit area) are concentrated largely along the shore of San Francisco Bay. These high yielding watersheds are generally old industrial areas. These yields were estimated through models calibrated and validated with the monitoring information from those dots on the map along with information about hydrology and sediment transport.

Because the monitoring information has revealed that old bayside industrial lands are generally where we find higher PCBs concentrations, this helps to refine the control measures in the permit. Thus, we have required Permittees to search for contaminated source properties (see Provisions C.11/12.b) in old industrial areas and to focus implementation of control measures in the moderately contaminated portions of old industrial land use (see Provisions C.11/12.c). Finding contaminated properties and addressing ongoing moderate contamination in these formerly old industrial bayside areas is an important element in reducing PCBs loads to the Bay.

Adaptive management is also in evidence for most other elements of the PCBs control program. For example, monitoring studies required in MRP 2 to investigate the presence of PCBs-containing caulk in roadways and bridges led directly to the requirements of Provision C.12.d to properly manage this material during roadway rehabilitation and repair. A stressor/source identification project from MRP 2 also led to the requirements (C.12.e) to control PCBs in oil-filled electrical equipment. Finally, monitoring and special studies investigating the presence of PCBs in caulk used in many older buildings led directly to the MRP requirements (C.12.g) for a control program for this material.

Monitoring data have been used not only for adaptive management of PCBs control programs but also to support modeling efforts to track load reduction progress of these control measures. The monitoring data collected through the MRP are used to calibrate and validate a variety of watershed loading models to generate estimates of the PCBs and mercury load reductions through time from all control measures. This will allow Permittees to track the progress toward achieving TMDL wasteload allocations through implementation of the control measures.

Comment: *Additionally, Provisions C.11 and C.12 allow Permittees to “comply with any requirement of this Provision through a collaborative effort and are encouraged to do so,” making it unlikely individual Permittees will report their progress and eliminating the Water Board’s, Permittees’ and the public’s ability to assess individual Permittee compliance. Moreover, to be deemed in compliance, Permittees cannot rely indefinitely*

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on initial modeling estimates. Data must be collected to recalibrate these models to confirm and validate modeling assumptions.

Response: Collaborative efforts, where appropriate, are vital to ensure consistency in approaches, encourage efficient dissemination of knowledge and data, and help conserve limited resources. We also note that C.11 and C.12 are about implementation to achieve load reductions. It is crucial that Permittees work collaboratively to make these activities as successful and efficient as possible. There has and will continue to be fruitful collaborative efforts to design and implement control measures. For example, Permittees have worked together to develop procedures for identifying PCBs source properties (C.12.b). They have worked together to collect data for assessing the loading from PCBs contained in bridge and overpass roadway caulk and for designing implementation strategies this source (C.12.d). Permittees worked collaboratively to design programs for controlling PCBs in demolition debris (C.12.g). None of these efforts would have been as effective or efficient if the Permittees were working individually, and this is just a small sample of the activities that have been improved through the Permittees working together. Permittees are required to report on each of the tasks required in C.11 and C.12, which reports are publicly available. Permittees also have individual monitoring responsibilities, and those are in Provision C.8. In the Provision C.8.f discussion of the Fact Sheet, we provided a detailed and thorough explanation about how monitoring and modeling are used to assess PCBs and mercury loads and load reductions. Moreover, one of the main management information needs motivating Provision C.8.f monitoring requirements is to collect monitoring data that will be used in combination with models to update loading estimates. As we explained in the Fact Sheet, the only feasible way to determine PCBs and mercury loads and load reductions is through models informed by monitoring data. Provision C.8.f requires Permittees to collect a minimum of 16 samples each for PCBs and mercury to support generating loading estimates for these pollutants. Likely many more samples than this will be collected that can be used to calibrate and validate watershed models used to generate the loading estimates.

C.14 (Bacteria Controls for Impaired Water Bodies)

Master Response Identifier: C.14.a-1

Comment Identifier: Baykeeper - 4

Provision No.: C.14.a (Enhanced Bacteria Controls for the Cities of Sunnyvale and Mountain View)

Comment: *C.14.a lacks milestones and final deadlines required by State Board Orders. The monitoring program in C.14.a.viii is undefined, there is no deadline for submission of a monitoring plan and the Permit does not require the monitoring plan first be submitted to the Water Board for review and approval. The public will not have the*

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opportunity to evaluate and comment on the rigor and accountability of the monitoring program, because the Cities will develop the monitoring program during MRP 3. It is unclear whether the monitoring tasks of using desktop and field evaluation methods, receiving water monitoring, and GIS analysis must be completed simultaneously. As written, Cities could postpone receiving water monitoring until the end of MRP 3's term. C.14.a.iii.(2) excludes outfall monitoring, limiting the Cities' ability to identify the efficacy of certain control actions, and making the monitoring program less effective. C.14.a.iii.(3) does not require monitoring, it only requires reporting on monitoring that has occurred; there is not enough accountability in this requirement. C.14.a does not include any modeling exercise to project when the Cities will cease causing or contributing to bacteria water quality objectives and there is no provision to implement adaptive management if initial projections are incorrect. C.14.a. includes "Planning for Phase Two Actions," indicating that the Water Board does not believe the actions in Draft MRP 3 will be adequate to achieve receiving water limitations. Phase 2 actions are left undefined; new actions are not required, and Cities can simply increase the level of existing control measures. There is no hard deadline for Cities to achieve bacteria Water Quality Objectives – the Cities may be allowed to continue to propose additional actions indefinitely in future MRP iterations. C.14.a contains no milestones based on measurable criteria or indicators to be achieved in the receiving waters and/or MS4 discharges. There is no final date for achieving the receiving water limitations as soon as possible. It is unclear what sort of progress at limiting bacteria the Water Board expects to make each year. The Water Board must exclude C.14.a from the Safe Harbor language in C.1.

Response: In response to the comment, C.14.a.viii's monitoring requirements (and Fact Sheet) have been revised to set forth the required types, intervals, and frequencies of monitoring that must be conducted, including outfall monitoring, bacteria characterization monitoring, and receiving water monitoring. The revised monitoring program must identify bacteria sources to receiving waters, help focus source control efforts, evaluate effectiveness of controls, and ultimately demonstrate attainment of the bacteria water quality objectives. The requirements include specific questions the monitoring program must answer, including the important question of whether bacteria water quality objectives are being met in the receiving waters. There is also a new mid-permit interpretive reporting obligation on the data collected, progress made in answering the specified monitoring questions, and the new, modified, or enhanced control that will be evaluated or implemented, among other requirements. This will enable the course correction referred to in the comment. This report also requires a description of the monitoring, subject to approval by the Water Board through a Permit amendment, to be conducted after the first phase of monitoring and surveillance under the Permit. This is because it is likely that the monitoring will have to be adapted to respond to the results of the required surveillance and monitoring. For example, the results could show that the bacteria exceedances in the receiving waters have been resolved or are worse and more extensive than is currently understood. In either case, different monitoring will be needed to respond to the new information. The Permit

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requires the new monitoring to be as comprehensive, systematic, and robust as what is currently required while being commensurate with the need to address and resolve bacteria exceedances in the receiving waters.

With respect to modeling, it is infeasible to predictively model when the cities will cease causing or contributing to bacteria water quality objectives. Please see revisions to the Fact Sheet for Provision C.14 on the uncertainties and unique characteristics of bacteria here that make modeling infeasible.

The requirements of C.14.a, as revised, are ambitious, rigorous, and transparent for several reasons. First, control of all known controllable sources of bacteria is required. Second, the requirements compel the cities of Sunnyvale and Mountain View to comprehensively evaluate their existing bacteria controls, systematically conduct surveillance and monitoring to identify sources, implement existing or enhanced controls, and monitor for effectiveness. The source identification and source control requirements are practical and robust and represent a logical first phase that could or should result in elimination of bacteria sources that result in MS4 discharges that cause or may cause or contribute to exceedances of bacteria water quality objectives in receiving waters. Given the completeness and thoroughness of the requirements to find and control all controllable sources of bacteria, the Water Board expects compliance with bacteria receiving water limitations by the end of the Permit term, and have revised Provision C.14.a.ix to clarify this in response to the comment for clearer deadlines. However, due to impossibilities or limitations of modeling or conducting a quantitative analysis for bacteria MS4 discharges and source uncertainties, it is impossible to assert with certainty at the onset of the Permit term that source identification and control actions will result in compliance by the end of the Permit term on June 30, 2027. For this reason, the expectation to comply with receiving water limitations by June 30, 2027, is not expressed in the Permit as an enforceable final deadline. The State Water Board Orders pertaining to alternative compliance allow deviation from the principles therein where a regional water board shows a principle is inappropriate for region- or permit-specific reasons. The unique characteristics, challenges, and unknowns posed by bacteria here, as explained in the revised Fact Sheet for this provision, support not using the June 30, 2027, as an enforceable final deadline. This phased approach is also consistent with the numerous bacteria TMDLs in the region. This does not mean the cities are not accountable—they must undertake all of the required actions in the Permit and we have no reason to believe that the cities will not perform what is required of them. Moreover, phase two actions and deadlines, if necessary in the next permit, will naturally be informed by the cities' performance during this Permit term, which should incentivize the cities' efforts during this Permit term.

The third reason Provision C.14.a's requirements are rigorous, ambitious, and transparent is because they are based on the rigorously studied and publicly vetted phased source control strategies of the many bacteria TMDLs adopted in the San Francisco Bay region. The requirements reflect the Water Board's determination in these TMDLs on the most effective way to resolve bacteria impairments in the region. TMDLs have resulted in successful outcomes in, for example, Richardson Bay and

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Tamales Bay.³⁵ The requirements are more than the iterative process of improved BMPs over an indefinite period to prevent or reduce exceedances of receiving water limitations; rather, they are rigorous, comprehensive, and systematic requirements to control all controllable bacteria sources.

Phase two actions are necessary only if compliance is not achieved by the end of the Permit term. While the Water Board expects compliance to be achieved by the end of the Permit term, as explained above and in the Fact Sheet, it is impossible to assert with certainty that compliance can be achieved by the end of the Permit; therefore, allowing for the possibility of phase two actions is necessary. Phase two actions, if necessary, will depend on the actions taken during the permit term, and, therefore, cannot yet be specified. The State Water Board supports this kind of adaptive management where compliance is not achieved. (WQ Order 2021-0052-EXEC, p. 65-66.)

C.15 (Exempted and Conditionally Exempted Discharges)

C.15.b.iii – Emergency Discharges of Firefighting Water and Foam. By way of background, this subprovision addresses discharges of firefighting water and foam associated with emergency firefighting activities. Discharges of firefighting water and foam associated with non-emergency firefighting activities such as training are neither exempted nor conditionally exempted by this Provision; they are prohibited pursuant to Discharge Prohibition A.1. If there are discharges to storm drain systems or watercourses of firefighting water and/or foam (or other non-stormwater) associated with non-emergency (e.g., training) firefighting activities, which would violate Discharge Prohibition A.1, then Permittees must comply with the reporting specified in Provision C.23.c.

This Provision acknowledges that in cases of emergency discharge, such as from firefighting and disasters, priority of efforts shall be directed toward life, property, and the environment, in that order. Therefore, Permittees are required to implement BMPs only when they do not interfere with immediate emergency response operations or impact public health and safety.

The requirements in Provision C.15.b.iii ensure that Permittees reduce or eliminate the significant pollution from firefighting foam and water discharged during firefighting emergencies, without compromising the ability of firefighting personnel to protect lives and property. Through the convention of a workgroup, Permittees are required to evaluate and improve the efficacy of their BMPs and SOPs for the containment and

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https://www.waterboards.ca.gov/about_us/performance_report_1718/plan_assess/docs/fy1718/2018_richardson_bay_tmdl.pdf

https://www.waterboards.ca.gov/about_us/performance_report_1718/plan_assess/tmdl_outcomes/r2_tamales_bay_pathogens.pdf

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cleanup of firefighting water and foam discharged during firefighting emergencies. Permittees will implement the workgroup's recommendations, upon submittal of a report midway through the Permit term.

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Master Response Identifier: C.15-1

Comment Identifier: Part 1) of ACCWP-77,79,80, CFCA-1, CCCEFC-1, CCCWP-90, Oakland-46, SCVURPPP-14d, SMCWPPP-287

Provision No.: C.15.b.iii

Comment: *Recommend replacing specific requirements with language that would encourage participation in a stakeholder group to discuss options for fire departments and/or Permittees to address water quality concerns related to firefighting discharges.*

Response: Removing the "specific requirements" would eliminate many requirements that were present in MRP 2, not only requirements that have been added or changed in the Tentative Order. The comment does not elaborate on which specific requirements should be removed, but it is assumed to mean everything other than C.15.b.iii.(2), Regional Coordination. The requested change - language encouraging participation in a stakeholder group to discuss options for fire departments and/or Permittees to address water quality concerns related to firefighting discharges - is exactly what is provided in C.15.b.iii.(2).

That said, we have made several responsive changes to the language in the Tentative Order. We have reduced the reporting burden to a single Firefighting Discharges Report in 2025, from a preliminary report in 2024 and a final report in 2026, and reduced the required frequency of the Working Group's meetings. In addition, in coordination with the MRP Firefighting Discharges workgroup, we modified language to clarify the substantial flexibility around expectations for the Working Group and the required report.

We have clarified in several places that BMPs and SOPs are not limited to containment and cleanup of firefighting water and foam. We have also further clarified that the BMPs and SOPs that were previously listed as examples to consider in C.15.b.iii.(4) are recommended (not required), and have moved them into the Fact Sheet to preclude confusion about that.

Master Response Identifier: C.15-2

Comment Identifier: Part 2) of ACCWP-77,79,80, CFCA-1, CCCEFC-1, CCCWP-90, Oakland-46, SCVURPPP-14d, SMCWPPP-287)

Provision No.: C.15.b.iii

Comment: *This working group needs to be free to develop the most effective and achievable recommendations. The permit, as written, sets unreasonable and ineffective targets and will ultimately lead to failure. MRP 3 should establish the group and set an overarching goal and not specific provisions.*

Response: C.15.b.iii.(2)(a) does set an overarching goal for the Firefighting Discharges Working Group: "...to identify and evaluate opportunities to reduce the impacts of emergency discharges to the MS4 associated with firefighting activity." The Firefighting

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Discharges Working Group is free to develop guidance for the most effective and achievable BMPs and SOPs, and in coordination with the MRP 3 Firefighting Discharges workgroup, we modified permit language to clarify that intent. The language includes specific prompts for issues to consider, which are information for the Working Group to use as it develops the required report, but which are not required BMPs.

These specific prompts do not limit the Working Group as it considers development of guidance, but they are linked to observed adverse impacts to water quality and beneficial uses of emergency firefighting discharges (e.g., from discharges of chloraminated potable water to creeks), and they recognize the range of municipal departments that may contribute to emergency response, including fire department, public works, and environmental services. As such, it is reasonable to consider them and the extent to which measures could be implemented to reduce the discharges' adverse effects. Further, the tasks in C.15.b.iii.(2)(a) were assigned to individual municipalities in the Administrative Draft, and per the Permittees' request, they were reorganized as a regional task in the Tentative Order, which represents a substantial reduction in level of effort and specificity.

We also note that the Working Group may go beyond the prompts in the Tentative Order, for example, by optionally discussing BMPs for non-emergency discharges of firefighting water and foam (which are prohibited rather than conditionally exempted). We have added language in the Fact Sheet that recognizes this.

Master Response Identifier: C.15-3

Comment Identifier: ACCWP-78

Provision No.: C.15.b.iii

Comment: *We support the idea of the Working Group. There are a significant number of new requirements identified in C.15.b.iii with little knowledge, background, or research to support them. In some Permittee jurisdictions, the responding fire agency may be a special district or Cal Fire, a state agency, over which the Permittee may not have direct oversight. Also, there are no private firefighting crews in the Bay Area.*

Response: We disagree. The commenter did not specifically identify any new requirements that are of concern. However, the Provision sets forth a model that has been used effectively in the past, and which the commenter supports, to develop and implement BMPs and SOPs. C.15.b.iii sets the expectation that Permittee staff, such as firefighters and stormwater program staff, work together to develop a Firefighting Discharges Report that identifies BMPs and SOPs to reduce the potential adverse effects to water quality and beneficial uses from emergency firefighting discharges. It then sets the expectation that the Report's recommendations will be implemented. That model was proposed by the Permittees with Water Board staff support and is similar to

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approaches taken in past permits to develop similar guidance and implementation documents.

We concur that in some cases firefighting agencies may not be under a Permittee's direct oversight, and have added language to the Fact Sheet to make more explicit that this is an issue the Working Group should consider in preparing the Firefighting Discharges Report.

Master Response Identifier: C.15-4

Comment Identifier: Part 3) of ACCWP-78, SCVURPPP-150, SMCWPPP-287

Provision No.: C.15.b.iii

Comment: *The significant amount of new requirements and level of effort needed for implementation far outweighs the potential water quality impacts that could be addressed after life and property are addressed.*

Response: We disagree. Justifications for the revisions to C.15.b.iii are outlined at length in the Fact Sheet and include the potential for emergency firefighting discharges to cause fish kills and other adverse impacts to water quality and beneficial uses. One role of the Working Group is to identify those situations where actions could reduce these significant adverse impacts, including consideration of constraints that may limit implementation.

Please also see Master Response Identifier: C.15-8.

Master Response Identifier: C.15-5

Comment Identifier: Part 1) of ACCWP-77,79,80, CFCA-1, CCCEFC-1, CCCWP-90, Oakland-46, SCVURPPP-14d, SMCWPPP-287

Provision No.: C.15.b.iii.(5)

Comment: *Remove changes to reporting between MRP 2 and the Tentative Order for MRP 3, because of the burden of additional reporting requirements.*

Response: We agree and have made the requested change. We have removed all of the reporting that was added in the Tentative Order on top of the existing reporting requirements in MRP 2. Instead, the subprovision now tasks the Working Group with developing reporting recommendations, detailing those in the Firefighting Discharges Report, and finally, implementing those reporting recommendations once the Firefighting Discharges Report is submitted.

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Master Response Identifier: C.15-6

Comment Identifier: Part 2) of San Jose-44

Provision No.: C.15.b.iii

Comment: *Implementing BMPs may not be feasible given staffing for the Fire Department as well as any contractors that would be needed. This doesn't give consideration to the fire season, during which San Jose firefighters are deployed to assist with wildfire efforts. Also, keeping resources on-scene of an extinguished fire to plug and dyke water/foam runoff for prolonged periods of time will take first responders out of the system, thus increasing emergency response times and impacting service delivery.*

Response: This concern is addressed by C.15.b.iii.(4)(b): "During emergency firefighting situations, priority of efforts shall be directed toward life, property, and the environment (in descending order). Permittee staff, contractors, or firefighting personnel shall control the pollution threat from their activities during emergency firefighting situations to the extent that time and resources allow."

Master Response Identifier: C.15-7

Comment Identifier: Part 5) of San Jose-44

Provision No.: C.15.b.iii.(4)(a)

Comment: *More consideration is needed for the potential consequences. For example, plugging storm drains could result in flooding. Most importantly, the impact to firefighter's health and safety needs to be considered. Implementing BMPs and using fire suppressants that take longer to extinguish fires required crews to stay longer which increases their exposure to immediate and long-term risk (e.g. health impacts from smoke and fumes).*

Response: This concern is addressed by C.15.b.iii.(4)(a): "The Permittees shall implement and/or require firefighting personnel acting within their jurisdictions to implement BMPs and SOPs for emergency discharges – in order to reduce potential and actual water quality impacts – to the extent that the implementation of such BMPs does not interfere with immediate emergency response operations or impact public health and safety." In other words, if plugging the storm drain for a particular fire would cause flooding, that BMP does not have to be implemented for that fire. Likewise, if the implementation of a BMP such as the use of a fire suppressant that takes longer to extinguish fires would increase the health risks of firefighting personnel, then that BMP does not have to be implemented. Permittees are able to self-determine this.

We have also moved the recommended BMP and SOP examples from the Provision into the Fact Sheet, so it is clearer that they are recommendations to be considered by

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the workgroup, rather than required BMPs and SOPs to be implemented by the Permittees on the effective date of MRP 3.

Master Response Identifier: C.15-8

Comment Identifier: CCCWP-87, Oakland-44, SCVURPPP-171

Provision No.: C.15.b.iii & C.15.b.iii Fact Sheet

Comment: *Federal regulations only require municipal stormwater programs to address firefighting activities “where such discharges or flows are identified as significant sources of pollutants to waters of the United States” (40 CFR § 122.26). No such finding has been made for Contra Costa County or for Oakland. The finding made in the Fact Sheet refers to a fish kill study in Berkeley, however, this does not provide substantial evidence of similar occurrences in Contra Costa County or Oakland, as the Berkeley fish kill study is not representative of conditions in Contra Costa County or Oakland.*

Regulating this category with the large number of specific requirements is based on one noted fish kill during the permit term. We recognize the water quality impact from this discharge, but the current permit regulations allowed Water Board staff and the Berkeley Fire Department to adequately address the specific incident and implement corrective actions. Since MRP 2 did not cite any issues we may assume that this significant level of regulation is to address one incident from firefighting discharges in at least 10 years. Revise the Fact Sheet to reflect no incidents of water quality impacts from individual fires were identified in the previous MRP.

Response: Comment noted. There is substantial evidence of the adverse water quality impacts of emergency firefighting discharges, which include discharges of both chloraminated potable water and foams in addition to any materials discharged from the area of the fire. The Fact Sheet section for C.15.b.iii explains the following:

"According to 40 CFR §122.26, MS4 Permits may address discharges or flows from firefighting only where such discharges or flows are identified as significant sources of pollutants to waters of the United States. Discharges from firefighting activities are excluded from the definition of illicit discharges, but may be regulated where they are significant contributors to water pollution. This is consistent with U.S. EPA’s treatment of firefighting discharges to small MS4s. U.S. EPA envisions that significance is determined with reference to the category of discharges, not individual fires.

At the same time, water quality impacts from individual fires illustrate the significance of the category of discharges. For instance, in April 2019, the discharge of firefighting foam through the storm drain to Codornices Creek in Berkeley caused a fish kill of at least 60 fish, including steelhead.

Potable water is also used to fight fires. In the Bay Area, chloramines are typically used to control pathogens in potable water, and they are toxic to aquatic life. Discharges of

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chloraminated potable water to Bay Area receiving waters have caused fish kills. As a result, discharges of chloraminated potable water used for firefighting have the potential to impact aquatic life, including by causing fish kills.

The Water Board observes the following: fish kills from potable water discharges almost every year; small volumes of potable water discharges (between 4,000 and 10,000 gallons) kill fish; and many species of fish (steelhead, rainbow trout, three-spine stickleback, Sacramento suckers, hitch, California roach, mosquitofish, green sunfish, bluegill, fathead minnows, sculpin, golden shiners) and crayfish have been killed by potable water discharges.

There are several recent examples of potable water discharges that resulted in fish kills (and fines) in the Bay Area, listed below. It is important to note that this list is inexhaustive. It includes all fines since 2007, but not all fish kills since 2007. That is because it excludes potable water discharges (resulting in fish kills) between 2018 and 2022 which normally would have resulted in fines, because the Water Board chose not to enforce; review of the Water Board's Enforcement Policy resulted in coordination with water purveyors to improve their asset management programs in lieu of penalties.

- (1) Cal Water Service Company, \$200,000 ACL, 137,640 gallon discharge to Polhemus Creek in September 2007, killed 21 steelhead + 2 stickleback (R2-2009-0006);
- (2) EBMUD, \$72,000 ACL, 4,200 gallon discharge to Sausal Creek in August 2010 killed 25+ rainbow trout and 23,400 gallon discharge to Reliez Valley Creek in January 2010 with unknown impact. (R2-2012-0008);
- (3) CalTrans, \$31,250 ACL, 8,250 gallon discharge to Bear Gulch Creek in May 2011, resulted in fish kill (R2-2012-0009);
- (4) SFPUC, \$608,310 ACL for 4 violations, including a 37,500 gallon discharge to San Mateo Creek in Jan 2011 killing 5 rainbow trout and 16,500 gallon discharge to San Mateo Creek in October 2012 killing 64 fish including 28 steelhead. (R2-2014-1003);
- (5) CA Water Service Company, \$1,020,000 ACL for 8,207,560-gallon discharge to Polhemus Creek and San Mateo Creek in October 2013 killing 231 fish including rainbow trout and 1 crayfish (R2-2016-1012);
- (6) Town Hillsborough, \$221,030 ACL for 153,000-gallon discharge to San Mateo Creek in September 2015 killing 505 fish including threatened species under the Endangered Species Act (R2-2017-1028);
- (7) EBMUD, \$893,190 ACL for 3 discharges: (1) a 72,000-gallon discharge to San Ramon Creek in October 2015 killing 104 fish including mosquitofish, Sacramento suckers, hitch, and California roach; (2) 2,200,000-gallon discharge to Las Trampas Creek in November 2015 killing 17 California roach and 2 Sacramento suckers; and (3) 191,400-gallon discharge to San Ramon Creek killing 140 California roach, 100 three-

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spined stickleback, 75 mosquitofish, 6 green sunfish, 4 bluegill, and 2 fathead minnows (R2-2017-1031);

(8) Marin Municipal Water District, \$129,250 ACL for 105,000-gallon discharge to San Anselmo Creek in July 2016 killing an unquantified number of fish that included sculpin, California roach, and rainbow trout or steelhead (R2-2018-1004);

(9) Dublin-San Ramon Services District, \$129,250 ACL for 61,000-gallon discharge to Alamo Creek in September 2017 killing 130 golden shiners and 1 bluegill (R2-2018-1006);

(10) San Jose Water Company, \$75,000 ACL for 111,250-gallon discharge to Babb Creek in September 2017 killing 565 fish (R2-2018-1011); and

(11) City of San Mateo, \$73,700 ACL for 7,720-gallon discharge to San Mateo Creek in May 2021 killing 44 steelhead, 26 prickly sulpin, 19 Sacramento suckers, 8 threespine stickleback, and 1 crayfish (R2-2022-1001).

The Berkeley incident and the use of chloraminated potable water for firefighting demonstrate that flows from firefighting activities can contribute substantial amounts of pollutants to receiving waters if not managed. As a result, the Water Board has determined that firefighting discharges can contribute significant pollution to receiving waters and require management by Permittees."

To the extent non-population-based Permittees (i.e., flood control districts) would have a different role in firefighting, that issue should be addressed by the Working Group and in the produced Firefighting Discharges Report.

Master Response Identifier: C.15-9

Comment Identifier: ACCWP-77,78,81,82, CFCA-2, CCCEFC-2, CCCWP-87,90, SCVURPPP-14b,14c,150,154,159,165,166,167,168,172, SMCWPPP-35,36,37,285,287,290,295,301,302,303,304,307

Provision No.: C.15.b.iii, C.15.b.iii.(4)(a)(v)

Comment: *C.15.b.iii requires Permittees to influence and oversee emergency firefighting activities, which is outside of Permittees' jurisdiction and may interfere with the ability of firefighters to combat emergencies. C.15.b.iii would have municipal stormwater staff directing fire departments on the types of firefighting foams to use, types of fires on which to use foam, amount of foam to use, and locations not to use foams. Stormwater Programs should not be responsible for dictating what tools are used to fight fires and do not have jurisdiction over many fire agencies. Local stormwater programs should not be making decisions that have life and safety consequences - these decisions should only be made by properly trained and knowledgeable fire departments. Permittees should not be held responsible for the*

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conduct of fire fighters who are focused on putting out fires, rather than implementing BMPs.

There are also significant new reporting and training requirements that will be difficult for Co-permittees to impose on fire departments.

Permittees don't have jurisdiction over fire agencies that are special districts, and therefore Permittees do not have the authority to require fire agencies to implement BMPs. For example, the Menlo Park Fire District services Menlo Park, East Palo Alto, Atherton, and portions of Unincorporated San Mateo County - the Cities served by that district do not have direct oversight.

Fire agencies are their own special districts in all but three Contra Costa County cities and should therefore be regulated separately and not in MRP 3. Permittees would have little to no legal authority to require these special fire protection districts to implement the required practices identified in the Tentative Order.

Permittees overseeing and regulating fire agencies is problematic and poses legal questions regarding the authority Permittees and/or the Water Board would have in regulating fire agencies. This unresolved legal question has the potential to derail efforts to collaborate on achievable solutions as we argue over authority and jurisdiction. It also sets Permittees up for failure as they have no way to enforce provisions of MRP 3, which they have no legal authority to implement.

Response: The Permit covers discharges to the Permittees' MS4s. Many of the Permittees (e.g., Oakland, Berkeley, San Jose) include municipal fire departments. While Permittees have often established stormwater program staff within their municipality, the stormwater programs themselves are not Permittees. The municipalities - of which stormwater programs and fire departments are often both part - are the NPDES Permittees. Although a stormwater program may lead and coordinate its municipality's compliance with the MRP, the entire municipality is subject to the MRP's requirements as the Permittee, and therefore the MRP neither directly nor indirectly requires stormwater programs to internally regulate fire departments.

For municipalities that do not have their own fire departments, but which rely on countywide fire departments that are part of special districts, please see the response to the following comment in the Response to Comments table: ACCWP-78.

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Master Response Identifier: C.15-10

Comment Identifier: Part 2) of ACCWP-79,80, SCVURPPP-152,153, SMCWPPP-288,289

Provision No.: C.15.b.iii.(2)(a)(ii)-(iii)

Comment: *Cleanup BMPs/SOPs should only be for fires that occur in municipal/public property or right of way. Fires that occur on private property are the responsibility of the property owner for cleanup.*

Response: We disagree. While individual property owners may be responsible for cleanup on their properties, to the extent that cleanup has the potential to discharge to the MS4, Permittees have certified they have the authority to address those discharges. As a result, Permittees may hold private property owners responsible for containment and cleanup on their properties, and could do so via means such as providing educational materials to property owners or contractors involved in such cleanups and considering other opportunities to set expectations regarding cleanups, such as during business licensing or via a separate municipal authorization. Under the MRP, Permittees are responsible for non-stormwater discharges to their MS4s and receiving waters, regardless of whether the discharges originate from public or private land.

Master Response Identifier: C.15-11

Comment Identifier: Part 1) of CFCA-3, CCCEFC-3, CCCWP-89, Oakland-45,46, San Jose-8, SCVURPPP-150,159,163,164,167,168, SMCWPPP-285,295,299,300,303,304

Provision No.: C.15.b

Comment: *Over-regulation of firefighting activities during emergency situations. There is no way to detain and collect firefighting runoff (and dispose of the runoff according to jurisdictional requirements), to determine the impact of every foam application to every receiving water, or to remove chloramine from runoff. Including provisions in the MRP 3 that cannot and will not succeed sets up permittees for failure and reduces the opportunities for real environmental quality improvements. Blocking storm drains, collecting firefighting runoff and treating runoff is cost prohibitive, infeasible to store and treat due to the large quantities, and could result in life and safety hazards and property damage due to localized flooding. These prescriptive BMPs should be removed, and fire agencies should continue implementing current voluntary water quality protection BMPs until September 30, 2024, when C.15.b.iii.(2) requires new BMPs developed by a statewide Firefighting Discharges Working Group (Working Group), to go into effect.*

Response: The Tentative Order appropriately recognizes the commenters' stated priority of life/public health, property, and the environment, in that order. C.15.b.iii.(4) states that permittees must implement BMPs and SOPs "to the extent that the

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implementation of such BMPs does not interfere with immediate emergency response operations or impact public health and safety.”

We do not agree with the request to remove C.15.b.iii.(4), which requires implementation of measures to mitigate the adverse water quality and hydrologic impacts associated with emergency firefighting discharges, which are conditionally-exempted non-stormwater discharges. As noted above, although recommendations for BMPs and SOPs to be considered are provided in the Fact Sheet, C.15.b.iii.(4) does not dictate which BMPs Permittees must use, or in which situations they must be used –. Rather, this is addressed via the Working Group and its collaborative preparation of a report, which will include consideration of the range of situations and control measures available.

Please see the response to the following combined comment in the Response to Comments table, regarding the Working Group’s role in the consideration of BMPs and SOPs:

ACCWP-77,79,80

CFCA-1

CCCEFC-1

CCCWP-90

Oakland-46

SCVURPPP-14d

SMCWPPP-287The Permit emphasizes the flexibility and choice that fire departments (and Permittees, generally) have in BMP selection, and simply has provided examples in the Fact Sheet. For instance, the non-prescriptive language in the footnote, "Examples of BMPs to be considered...", indicates that the BMPs listed in C.15.b.iii.(4) are not required, but recommended. The Working Group may determine that it is appropriate to consider a broader scope.

We recognize that in some instances, it may be impracticable or dangerous to retain, collect, or treat all firefighting discharges. Nevertheless, within the established life – property – environment hierarchy, there are ways to reduce discharges of foam and potable water. For instance, using less environmentally harmful foams, or limiting the quantity of foam used, may lessen impacts on receiving waters without the need to block off storm drains. Similarly, collection and treatment of firefighting water may be feasible for certain types of fires; this may reduce firefighting discharges and their associated adverse impacts to water quality significantly for those kinds of fires.

Furthermore, we recognize that a range of municipal staff and departments may respond to a fire – that could include fire departments, public works, environmental services, and others. We anticipate that the Working Group will discuss that collective response and consider issues such as the responding staff, their roles, opportunities for communication and coordination, and so on. For example, public works staff may be able to assist with non-emergency tasks, such as blocking off storm drains, if they can

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do so from a far enough distance away such that they do not interfere with emergency firefighting activities, to reduce the burden on firefighting personnel to implement clean water controls. If it is not possible for municipal staff, including firefighting staff, to implement a particular control, that control does not have to be implemented. Therefore it will be important for the Working Group to convene and think about which actions are possible and doable in which situations.

Similarly, the Water Board is confident that the Permittees can determine the impact of foam applications to receiving waters. Permittees should have maps of their MS4 systems that show discharge points to receiving waters (If a Permittee does not have this information, C.5.f requires Permittees to: "...identify information missing from the current MS4 maps and develop a plan and schedule to compile additional storm sewer system information, considering the potential to identify component locations, size or specifications, materials of construction, and condition."). Permittees also have records of fires that required use of firefighting foams. With knowledge of discharge points to surface waters and the location of fires where foams were used, the Permittees will be able to inspect nearby surface waters to determine impacts.

The Water Board also disagrees that chloramine cannot be removed from any runoff. If the runoff is contained within the MS4, it can be dechlorinated in place; if the runoff cannot be contained within the MS4, dechlorination measures, such as mats or dechlorination chemical in solution may be used before the water enters the MS4 or as it moves through the MS4, prior to it entering the receiving water. That said, this is challenging for very high flow rate discharges. C.15.b.iii looks to the Working Group to make these kinds of assessments, about what is possible in different situations.

As explained above (see Master Response Identifier: C.15-8), chloraminated discharges have significant adverse impacts on aquatic life, so this is an important issue for the Working Group to consider.

C.17 (Discharges Associated with Unsheltered Homeless Populations)

Master Response Identifier: C.17-1

Comment Identifiers: CCCWP – 93, SCVURPPP – 183, Oakland & San Jose – 7, SMCWPPP – 32, 318, Pleasanton - 1

Provision No.: C.17

Comment: *C.17 language such as "ensuring implementation of control measures" assumes an authority over homeless populations and authority over the various agencies that assist homeless populations that stormwater programs do not have. The Tentative Order is placing responsibilities on stormwater programs in an area that is currently the responsibility of social services, and mental and public health professionals. Stormwater programs could assist these other agencies in addressing homeless problems specific to the expertise of stormwater programs and advocate for*

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homeless services that include mitigating impacts to water quality, but stormwater programs cannot determine which control measures are "appropriate" nor "ensure" they will be implemented.

Response: We disagree that the language in C.17 assumes Permittees have an authority over homeless populations and authority over other agencies that provide assistance to homeless populations. Discharges associated with unsheltered homelessness are, like other unauthorized non-stormwater discharges, prohibited by the Clean Water Act. The requirements in C.17 are specific to control measures that Permittees should implement in-order to address discharges from homeless encampments to receiving waters. These actions to control discharges associated with unsheltered homelessness are necessary to prevent or minimize impacts to water quality and public health. Requiring Permittees to implement control measures to address these discharges does not amount to asking stormwater programs to “assume authority” over homeless people or the agencies that assist them. Rather, the requirements in C.17 are intended to ensure Permittees are collecting basic information that is crucial towards understanding the scope of the problem; sharing knowledge and lessons learned with other agencies, and building on efforts already underway throughout the Region to address these impacts to receiving waters.

As an example, C.17.a.iii.(1) requires that Permittees collectively develop and submit a BMP report that identifies effective practices to address discharges associated with unsheltered homelessness that impact water quality. This is intended to improve the overall knowledge of effective practices, in part by recognizing practices permittees are already implementing. This kind of approach is similar to work Permittees have completed in the past, such as C.3 Technical Reports to inform municipal and developer implementation of clean water requirements for new and redevelopment projects.

Master Response Identifier: C.17-2

Comment Identifiers: CCCWP – 95, SCVURPPP – 179, 184, San Mateo County – 22, SMCWPPP – 21, 314, 319, Pleasanton – 3, Oakland – 50, ACCWP – 87, Solano – 10

Provision No.: C.17

Comment: *Provision C.17.a.ii.1 requires each Permittee to submit a map locating homeless residents in relation to the MS4 system and other water bodies. Tracking and locating homeless residents on maps to the level necessary to identify drainage pathways into the MS4 system would be a dehumanizing effort. The "point in time" census information on homelessness is displayed in a heat map format as a sign of consideration for the plight that homeless residents find themselves in. Permittees should not be asked to track and locate homeless residents. The term "point in time" is used to underscore that homeless*

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populations are highly nomadic in nature and the census data is simply valid for a small window of time. With this understanding, the value of a mapping requirement seems questionable. Furthermore, the maps and data being requested will only provide a "point in time" look based on the homeless population and encampments at the time of reporting. This data request does not further the overall goal.

Response: This requirement has been revised to clarify that Permittees have flexibility to prepare the maps and to support the privacy for those experiencing unsheltered homelessness. Permittees are still required to submit a map identifying, within its jurisdiction, the approximate location(s) of homeless encampments, and other areas where unsheltered homeless people live. The intent is not for Permittees to “track and locate” individual homeless residents, but to identify locations within their jurisdiction where homeless populations exist in relation to storm drain inlets and existing streams, rivers, flood control channels, and other surface waters. Having this information, represented as a heat map, or other similarly effective formats, will enable Permittees to track their existing homeless encampments, identify areas with persistent discharges from homeless encampments to receiving waters, and be able to identify specific locations to focus on while conducting outreach and the implementation of actions to protect water quality. Maps developed by Permittees will provide information on the overall size of the homeless population and its distribution at the time of reporting. Regional Board staff acknowledges that homeless encampments may be transient to some degree, however, particular locations may be used or reused over time. Having reasonably current information about encampment locations and size will enable Permittees to understand risks to receiving waters, and track progress achieved through the BMP implementation. We have retained the requirement that Permittees update their maps once during the permit term, in 2025, to enable Permittees to gauge effectiveness and trends, and to inform the next permit reissuance.

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Master Response Identifier: C.17-3

Comment Identifiers: SCVURPPP – 173, San Mateo County – 7, SMCWPPP – 33, 308

Provision No.: C.17

Comment: *Requirements in C.17.a.i.(1) that Permittees use results from biennial point-in-time census surveys and related information, such as municipal reports, databases, complaint logs, and other efforts, to gain a better understanding of unsheltered homeless population numbers within their jurisdictions, the locations of unsheltered homeless residents, discharges and water quality-related impacts associated with homelessness, and associated sanitation-related needs would require additional resources to gain an understanding of homeless populations; this entire provision should be incorporated as a subprovision into provision C.5 - Illicit Discharge Detection and Elimination, with recognition that traditional illicit discharge enforcement procedures are not appropriate for these types of discharges.*

In addition, an exemption for all requirements should be allowed if a Permittee has no known permanent homeless encampments or if populations in the Permittees' jurisdictions are truly transient.

Response: We disagree that the requirement for Permittees to use readily available results from the biennial point-in-time census surveys, and related information, to gain a better understanding of unsheltered homeless population numbers within their jurisdictions, the locations of unsheltered homeless residents, discharges and water quality-related impacts associated with homelessness, and associated sanitation-related needs would require additional resources to implement. Permittees should already be collecting and/or should have access to this information and, more importantly, should be using this information towards understanding the size, location, and needs of their unsheltered homeless residents. Requirements in C.17 have been separated from the Illicit Discharge Detection and Elimination program in C.5 in recognition of the many factors that contribute to unsheltered homelessness, and, by extension its associated discharges. By distinguishing discharges associated with unsheltered homelessness from other unauthorized discharges, the Water Board seeks to reduce the potential incentive that Permittees would otherwise have to implement practices, such as exclusionary zoning or prohibitions on overnight street parking, that might temporarily exclude homeless residents from a particular jurisdiction, but do not contribute to long-term solutions and can exacerbate challenges elsewhere. (e.g., Devers and West, Feb. 2014. Exclusionary Zoning and Its Effect on Housing Opportunities for the Homeless, Notre Dame Jn of Law, Ethics & Public Policy 4(2), <https://scholarship.law.nd.edu/cgi/viewcontent.cgi?article=1542&context=ndjlepp>).

We decline to include an exemption for permittees that have no homeless residents or wholly transient populations for the same reasons. Including such an exemption would encourage Permittees to implement exclusionary policies or policies that chased

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homeless populations to another jurisdiction but did not contribute to long-term solutions, or towards overall reductions in non-stormwater discharges associated with homelessness.

Due to the reasons outlined above, we believe that all Permittees have an important role to play in supporting the BMP report. Additionally, the available biennial point-in-time surveys are not sufficiently granular in location or frequency to determine whether homeless populations are absent from Permittee jurisdictions. It is therefore in the Permittees' best interest to collaborate with other agencies and Permittees in the development of a BMP implementation report, and to develop an effective framework for addressing discharges associated with homeless encampments that impact water quality and public health.

Master Response Identifier: C.17-4

Comment Identifiers: SCVURPPP -177, SMCWPPP – 312, Oakland – 49, ACCWP – 86, Solano – 9,

Provision No.: C.17

Comment: *Provision C.17.a.i.(2).(c) requires that Permittees consider the practicability of actions taken during the COVID-19 pandemic to reduce the spread of the virus in homeless populations (such as temporarily housing homeless people in hotels, etc.) and that contributed to reducing discharges from homeless encampments to receiving waters for longer-term implementation. This requirement should be removed as it does not directly relate to water quality concerns.*

Response: Water Board staff disagrees that this requirement should be removed. The intent is for Permittees to evaluate and consider whether proactive measures implemented to protect the unsheltered homeless during the COVID-19 pandemic could still be a useful means towards addressing discharges from homeless encampments to receiving waters. Examples of such actions include the provision of temporary housing and sanitation services. Permittees, including the cities of San Jose and Oakland, for instance, have had some success in reducing discharges from homeless encampments to receiving waters by both reducing the number of people living on the street, and by providing alternatives to dumping or direct discharges, e.g., trash or sanitation services, thus providing a direct water quality benefit.

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General Comments

Master Response Identifier: General – 1

Comment Identifier: Baykeeper - 10

Provision No.: Antidegradation Finding

Comment: *Draft MRP 3 does not comply with federal and state antidegradation requirements. The addition of Provision C.14.a to the Safe Harbor authorizes the lowering of water quality under MRP 3. The Safe Harbor in Provision C.1 authorizes discharges causing degradation of impaired and high-quality receiving waters while programmatic elements are developed and implemented for an indefinite period. Inclusion of Provision C.14.a in the Safe Harbor is not equivalent to the Safe Harbor in the LA County MS4 Permit, as it is not based on an impairment finding or TMDL.*

The anti-degradation analysis is deficient because it fails to address whether the addition of Provision C.14.a to the Safe Harbor in C.1 will result in degradation.

The antidegradation analysis for high quality waters does not examine whether the enforcement insulation provided by the permit's Safe Harbor is offset by the maximum benefit to the people of the state.

There are no interim or final compliance deadlines for Sunnyvale and Mountain View to meet bacteria standards in Draft MRP 3. The anti-degradation analysis references "compliance schedules," but there is no schedule. The Safe Harbor deems Sunnyvale and Mountain View in compliance with bacteria standards for merely implementing their existing MS4 program through MRP 3's term, if not forever. In order to satisfy antidegradation requirements, a valid Safe Harbor must include deadlines for when the degradation will end and receiving water limitations will be achieved. Provision C.14.a does not meet this requirement.

Unlike in the Los Angeles Board's municipal stormwater permit, the Regional Board's antidegradation analysis failed to evaluate an alternative that includes no Safe Harbor, thus extending the Safe Harbor to waterbodies without TMDLs.

In the economic analyses of each alternative the only evidence cited to support the proposition that Permittees face technical and financial constraints are the letters from Permittees requesting the trash load reduction deadlines be extended under C.10, which is not specific to Alternative 3, Option B. The economic analysis for Alternative 3, Option B is conclusory, unsupported, and clearly insufficient to satisfy antidegradation requirements.

The Water Board must conduct complete, waterbody-specific anti-degradation analyses for all waterbodies that will be degraded under C.14.a. Baykeeper believes that once a full analysis is conducted it will become clear that Provision C.1's Safe Harbor is not necessary, nor is C.14.a's inclusion in the Safe Harbor.

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Response: The proposed permit does not authorize lowering water quality as compared to the level of discharge authorized in the previous permit (the baseline water quality) such that no antidegradation analysis is required. It continues and strengthens the required controls to reduce the discharge of pollutants to the maximum extent practicable and meet receiving water limitations. The “deemed in compliance” with receiving water limitations language in Provision C.1 (which the commenter refers to as the “Safe Harbor”) by itself will not degrade water quality. The focus of antidegradation is water quality, not what is stated on paper as to how the Regional Water Board will determine compliance. Compared to the previous permit, Provision C.14.a requires the applicable Permittees to comprehensively evaluate their existing bacteria control actions, systematically conduct surveillance and monitoring to identify sources, implement existing or appropriate new or enhanced controls where necessary to control *all* controllable sources of bacteria, and monitor effectiveness of those controls to comply with bacteria receiving water limitations. Collectively, they are not expected to lower water quality related to bacteria in the subject waters as compared to the previous permit—rather, the opposite will occur. The robust and systematic actions will improve conditions in the affected water bodies and the permit has been modified to be clearer that compliance is expected by the end of the permit term. Moreover, bacteria are not a persistent pollutant that degrades receiving waters over time, as bacteria die off relatively quickly. In addition, water quality will not be lowered during the “deemed in compliance” period because there are no actions or controls that the Permittees would or can stop or delay because of the deemed in compliance language, resulting in worse water quality. There are no known specific sources of bacteria that the Permittees can ignore; as in the previous permit, Provision C.5 requires Permittees to eliminate any known or discovered illicit connections and illegal discharges to their storm drain systems.

Even though no antidegradation analysis is required, to be conservative, one has nevertheless been conducted consistent with state and federal antidegradation policies. The analysis assumes without deciding that the baseline water quality for comparison purposes is the best water quality since 1968. It demonstrates how under the permit existing uses and the water quality necessary to protect those uses will be protected in water bodies that are not high quality. For assumed high quality waters, the analysis makes the necessary findings that any degradation under the permit (i.e., Alternative 3 Option B in the antidegradation analysis) is consistent with the maximum benefit of the people of the state, among other findings. The analysis encompasses the inclusion of Provision C.14.a in Provision C.1’s deemed in compliance language. Thus, assuming the waters to which Sunnyvale and Mountain View discharge are high quality and assuming degradation could occur, the necessary analysis and findings have been made.

To the extent the commenter seeks to use the antidegradation policies to say findings are necessary before allowing degradation of already impaired waters, that is not the correct use of the policies. The policies only concern the degradation of high quality waters. The policies do not allow for a maximum benefit (or its federal equivalent)

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finding that supports further degradation of a water body that is already at or below the water quality objectives—the objectives are the floor. (See 40 CFR § 131.12 subds. (a)(1) and (b); Resolution 68-16 [degradation of high quality waters shall not result in water quality less than that prescribed in the policies].)

Where there are water bodies in which pollutants exceed water quality objectives (e.g., waters receiving Mountain View and Sunnyvale discharges), the mechanism for ensuring that discharges contributing to these exceedances are controlled is not the antidegradation policies. Such exceedances are addressed through the Water Code's requirement to implement the Water Board's Basin Plan, including consideration of "the beneficial uses to be protected, [and] the water quality objectives reasonably required for that purpose" (Wat. Code §13263(a)) and the allowance of a time schedule for achieving those objectives (Wat. Code §13263(c).) Federal law likewise provides for a mechanism by allowing compliance schedules in NPDES permits. (40 CFR § 122.47.)

The antidegradation policies are particularly challenging to apply in situations where water quality is currently below the objectives, but was, or assumed to be, of better quality than the objectives at some point since 1968 (i.e., the waters are considered "high quality waters" for purposes of the antidegradation policy, but are currently below objectives). Since the antidegradation policies set the water quality objectives as a floor for degradation, such water bodies have already been degraded to a level that a maximum benefit finding under the antidegradation policies cannot accommodate. In those scenarios, the appropriate antidegradation framework considers whether the degradation of the best quality of water since 1968 to the objectives—not beyond the objectives—is justified, and the question as to whether further degradation beyond the water quality objectives is permissible is outside the scope of the antidegradation framework.

The commenter is incorrect that the Los Angeles County MS4 permit's deemed in compliance provision pertained only to parameters with TMDLs. (See, e.g., Los Angeles Water Board Order R4-2021-0105, p. 94.) Staff has confirmed this with the Los Angeles Water Board.

The commenter states the antidegradation analysis for high quality waters does not examine whether insulating Permittees from enforcement (through Provision C.1) for causing degradation is offset by the maximum benefit to the people of the state. We disagree with the premise of the question that the deemed in compliance language by itself will lead to degradation, as explained above. In any case, the commenter is advocating for administrative and judicial (e.g., citizen suits) enforcement of violations of requirements with which Permittees cannot immediately comply. We do not, however, believe it is in the maximum benefit of the people for the Water Board to impose and allow enforcement of permit requirements with which Permittees cannot immediately comply. In fact, it is bad government and bad policy as it leads to failure. Effective regulatory outcomes occur when requirements account for the feasibility of compliance and provide, as necessary, a path to compliance. Here, the assumed high quality

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waters are in fact currently impaired by various pollutants and have TMDLs allowing Permittees a time schedule to come into compliance. The proposed Permit, like the previous permit, is consistent with time allotted in these TMDLs to come into compliance with water quality standards. For bacteria in the waters to which Sunnyvale and Mountain View discharge, immediate compliance is unrealistic even if required due to technical constraints. There are no known specific sources of bacteria that can be controlled immediately. There are categorical sources that the permittees must investigate and control once specific sources are found after systematic surveillance and monitoring. There are also no viable means to control bacteria in discharges by treating discharges. Some stormwater treatment or retention systems may reduce levels of bacteria in discharges, but they cannot be implemented immediately, and there are constraints that affect locating them where they would intercept discharges from bacteria sources, e.g., land availability and underground utilities. Also, most importantly, even though they may have viability due to other benefits, such as control of other pollutants and water supply augmentation using captured stormwater, none are able to reduce levels of bacteria equivalent to water quality objectives. Even municipal wastewater treatment systems cannot reduce bacteria to such low levels of bacteria without disinfection of the treated wastewater through chlorination/dichlorination, ozone disinfection, or ultra-violet light disinfection, which are not feasible for episodic stormwater discharges. The Fact Sheet on this point has been revised to explain the technical challenges of immediate compliance, which revisions are also shown below.

With respect to a schedule for Provision C.14.a., we have modified the permit to be clearer that compliance is expected by the end of the permit.

The commenter states that missing from the antidegradation analysis is an alternative that excludes the deemed in compliance language. Such an alternative is not consistent with adopted TMDLs, with which the Water Board must comply. The permit, like the previous permit, implements TMDLs which by their nature provide a time schedule to comply with receiving waters. In addition, State Board WQ Order 2015-0075, as amended by Order 2021-0052-EXEC, states compliance with TMDL requirements constitutes compliance with receiving water limitations.

The commenter states the economic analysis for Alternative 3, Option B is conclusory, unsupported, and insufficient. It also takes issue with citing to letters specific to trash. The citation is merely an example of the Permittees' financial constraints. We have nevertheless deleted the reference and made revisions to Alternative 3, Option B as follows:

Alternative 3 Option A, as compared to Option B, could potentially avoid some of the costs discussed above, ~~because~~ if some Permittees ~~may~~ are able to correct some exceedances earlier if required to comply immediately with receiving water limitations for all waterbody-pollutant combinations with no applicable TMDL. From a practical perspective, however, the Water Board finds that

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immediate compliance, particularly for those water that may have been high quality historically but are not high quality currently, is unrealistic even if required, given the technical and financial constraints faced by Permittees. There are no known specific sources of bacteria that can be controlled immediately. There are also no viable means to control bacteria in discharges by treating discharges. Some stormwater treatment or retention systems may reduce levels of bacteria in discharges, but they cannot be implemented immediately and there are constraints that affect locating them where they would intercept discharges from bacteria sources, e.g., land availability and underground utilities. Most importantly, even though they may have viability due to other benefits, such as control of other pollutants and water supply augmentation using captured stormwater, none are able to reduce levels of bacteria equivalent to water quality objectives.³⁶ They also have hydraulic capacity constraints that result in bypassing of untreated runoff during large storm events. Even municipal wastewater treatment systems cannot reduce bacteria to such low levels of bacteria without disinfection of the treated wastewater through chlorination/dichlorination, ozone disinfection, or ultra-violet light disinfection, which are not feasible for episodic stormwater discharges. Since it is unrealistic for Permittees will not be able to afford to comply immediately, any costs avoided would be non-existent to minimal. Further, the Permit limits application of Option B to the receiving water limitations for bacteria in water bodies (specifically, Stevens Creek, Calabazas Creek, and Sunnyvale East Channel/Guadalupe Slough) receiving discharges from Mountain View and Sunnyvale and monitoring demonstrates that these water bodies are not currently high quality for bacteria.

Commenter states a waterbody-specific complete antidegradation analyses for waters affected by Provision C.14.a and determine whether the deemed in compliance language is to the maximum benefit of the people. Please see the Fact Sheet's antidegradation analysis on why the Water Board is not required to conduct a waterbody-by-waterbody and pollutant-by-pollutant antidegradation analysis.

³⁶ Clary et al., 2020. International Stormwater BMP Database: 2020 Summary Statistics. Water Research Foundation, pp. 21-33. Accessed at: https://www.waterrf.org/system/files/resource/2020-11/DRPT-4968_0.pdf

Clary, Pitt, and Steets, August 2014. Pathogens in Urban Stormwater Systems. ASCE. Accessed at: <https://collaborate.ewrinstitute.org/ewri/ourlibrary/viewdocument?DocumentKey=fffe8a76-18b2-4f85-9b54-b0eac23f12a0>

Response to Comments Table

The comments in the following Response to Comments Table are summarized and paraphrased for brevity. For the full content and context of the comments, please refer to the comment letters, which have been annotated with comment numbers that are used in the table. To request copies of the annotated letters, please contact Derek Beauduy at (510) 325-8082 or RB2-MRP@waterboards.ca.gov.

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CCCWP - 1	General	To preserve previous comments raised, CCCWP and Contra Costa Permittees reassert every comment submitted on the Administrative Draft and every comment in their comment letter on the Tentative Order as set forth in full.	Comment noted. The comments submitted on the February 2021 administrative draft were considered and addressed via edits resulting in the issuance of the public draft Tentative Order. As a result, they are not addressed separately here. The Water Board is required to respond to comments on the Tentative Order that was circulated for public comment, not comments on prior iterations of the draft order that were circulated as a courtesy to Permittees and that have been significantly modified since the Tentative Order was circulated for public comment.	None.
CCCWP - 3, CCCWP - 4	General	The permit includes many new work products that are required to be submitted to the Water Board. Analyze each required work product to determine if it is redundant or necessary, and if it ensures improvements are made to water quality and adds value to the existing reports and work products, and make sure Water Board staff are available so reports can be reviewed, comments returned, and new plans implemented in a timely manner.	<p>Comment noted. Water Board staff considered as part of the Tentative Order, and again in making revisions in response to comments resulting in the Revised Tentative Order, the items noted in the comment. Staff also coordinated with Permittees in considering adjustments to and prioritization of work products. See also provision-specific responses, and responses to:</p> <p>CCCWP-5; Palo Alto-6; SCVURPPP-2; SCVURPPP-2c; SCVURPPP-2d; and</p> <p>Combined comment:</p>	See responses to the Commenter's subsequent Provision-specific comments on work products and reporting, as noted in Response, at left.

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			Santa Clara – 1 Palo Alto – 2 Los Altos – 2 SCVWD – 2 Cupertino -1 WVCWPA – 1.	
CCCWP – 5	General	The permit includes several required tasks that Permittees must undertake for which Permittees have no expertise in nor legal or regulatory authority to do. Having Permittees perform these tasks will result in outcomes that will have little benefit and, worse yet, may be infeasible for permittees to accomplish. For example, modifying emergency firefighting procedures to include water quality best management practices would best be handled directly between the Water Board and the Bay Area fire districts. Most Permittees have neither authority over fire districts nor expertise in emergency firefighting procedures. The homeless provision is another example where permittees do not have the expertise to implement permit requirements.	We disagree. The cited requirements use methods that have been used effectively for more than thirty years in the stormwater program, and with which the Permittees thus have substantial experience: organization of work groups to communicate and coordinate around effective measures to protect water quality, the production of guidance or other expectations reflecting the outcome of that coordination, and subsequent training or other education to support implementation of the guidance and expectations. Where a Permittee’s stormwater program staff may not have all of the expertise necessary to consider appropriate measures to protect water quality, it is reasonable to communicate and coordinate with other Permittee staff (e.g., fire department staff or staff working on other issues around unsheltered homelessness). For unsheltered homelessness, this is the response that Permittees including the cities of Oakland and San Jose are taking—internal coordination, which also facilitates coordination with external parties.	See cited responses.

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			<p>Additionally, the comment makes an implicit, but incorrect, distinction, between the stormwater program that many Permittees have established to implement the Permit, and the Permittees as a whole, which are the entities permitted under the Permit, and which are responsible for discharges to their MS4s, even when those discharges come from parties other than a Permittee's stormwater program.</p> <p>Please see also responses to:</p> <p>For emergency firefighting discharges:</p> <p>Combined comment ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>For discharges to the MS4 associated with unsheltered homelessness:</p> <p>CCCWP – 91 CCCWP – 94 and combined comment:</p>	

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			CCCWP – 93, SCVURPPP – 183, Oakland & San Jose – 7, SMCWPPP – 32, 318, Pleasanton - 1	
San Pablo - 1	General	San Pablo has significant concerns about language in the Tentative Order that could have the unintended consequence of terminating current projects and preventing future projects. Many of these concerns and others are addressed in the regional letter sent by the CCCWP on behalf of Contra Costa County Permittees.	Comment noted. Please see responses to specific comments in the CCCWP comment letter, and see response to combined comment: CCCWP - 3 CCCWP - 4	See responses to specific comments in the CCCWP letter and as noted in Response, at left.
Concord - 1	General	The Tentative Order is an improvement over the Administrative Draft released in February. However, it still recommends provisions which will not only prove detrimental to the residents of Concord, but actually work contrary to the stated clean water objective. At the request of the Water Board Chair, we are providing the specificity as to how Concord is already, and proposes to continue to, better achieving water quality objectives through our current approved 2019 Green	Comment noted. The Tentative Order appropriately sets forth expectations to achieve clean water goals consistent with the Clean Water Act and implementing regulations and policy. Specific comments/requests included in Concord's subsequent comments are addressed separately. For example, see responses in C.3 to combined comments: San Pablo-2 CCCWP-20 Concord-1, 2, 3	See responses herein to specific subsequent comments in Concord's letter and as noted in Response, at left.

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		Infrastructure Plan and project opportunities.	Orinda-3 CCCWP-13,22 Oakland-10 Walnut Creek-5 Concord-1 and Concord-1, 5.	
Santa Clara – 1 Palo Alto – 2 Los Altos – 2 SCVWD – 2 Cupertino -1 WVCWPA – 1	General	The Permittees are concerned that the Tentative Order does not fully consider the unprecedented situation that municipal agencies are currently facing as a result of the COVID 19 pandemic and related fiscal impacts, and does not provide cost-effective, flexible, and practical approaches focused on high-priority stormwater quality issues.	The Tentative Order takes into account disruptions associated with the pandemic, such as changes to municipal revenues, the availability of and increases to, or anticipated increases to, federal grant funding, funding from Caltrans for cooperative trash control projects, and increases in unsheltered homelessness. These have been considered in context with prioritized water quality drivers and Permittees’ ongoing efforts to control urban runoff pollutants, including pollutants like trash, mercury, and PCBs, and reasonable expectations for how those efforts should evolve over time. Those expectations include recognition of the need for Permittees to obtain resources for future actions. As a result, the Tentative Order includes changes such as: C.10 would delay mandatory trash control reductions by three years as compared to the schedule identified in MRP 2; C.3, while introducing two new regulated project categories and adjusting thresholds to reflect the MEP standard, would delay those new categories and the	This is a general comment. Edits have been made in response to more-specific points made by the commenters. See responses to specific comments in the cited Provisions.

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			<p>changes to existing thresholds by one year after the Permit’s effective date; rather than incorporating modest additional expectations for reporting and program review, C.2, C.4, C.5, and C.6 have been largely maintained as-is. In some cases, reporting under those provisions has been reduced; and new provision C.17, discharges associated with unsheltered homelessness, has been added to recognize the growing challenge associated with those discharges and to provide both focus and flexibility as compared to C.5’s more-rigid framework. In addition, to further focus efforts on the highest-priority water quality needs, the Revised Tentative Order incorporates delays in proposed reporting and reductions in or consolidation of reporting. Certain efforts, while desirable, are also optional (e.g., the opportunity in C.3.d.iv to expand the toolbox of available LID measures), giving Permittees the option to further focus on higher-priority efforts. Fact Sheet section C.10-11 notes Covid’s impact on trash discharges.</p>	
Palo Alto – 1 Los Altos – 1 SCVWD – 1 San Jose – 1 Cupertino – 1 WVCWPA - 1	General	The Permittees support the comments on the Tentative Order submitted by SCVURPPP on behalf of its member agencies as well as the comments submitted by SCVURPPP’s legal counsel,	Comment noted.	None.

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		Robert Falk, on behalf of SCVURPPP member agencies.		
Palo Alto - 6	General	<p>Palo Alto is concerned about the Tentative Order’s substantial new requirements in C.3, C.10, C.11/C.12, C.15, C.17, C.21, and C.22, all of which are designated as high priority by Water Board staff. Since the proposed MRP 3 effective date has been extended to July 1, 2022, requirements that were initially planned to be phased in have been made “effective immediately” or have shortened timelines based on the incorrect assumption that work on certain provisions will begin prior to the effective date of MRP 3. This assumption is inappropriate and unachievable, as Co-permittees have neither the resources nor the legal responsibility to begin work on provisions prior to the effective date of the reissued permit.</p> <p>The schedules for completing requirements during the term of the reissued permit should be adjusted to provide adequate time to allow Co-permittees to successfully achieve the goals of the requirements and not</p>	<p>In response to comments received, we have adjusted some reporting requirements for the referenced provisions, including reducing and simplifying reporting and delaying required reports. See the responses to comments on individual provisions for more-detailed information regarding specific changes.</p> <p>See also response above to combined comment:</p> <p>Santa Clara – 1 Palo Alto – 2 Los Altos – 2 SCVWD – 2 Cupertino -1 WVCWPA – 1</p>	<p>This is a general comment. Edits have been made in response to more-specific points made by the commenter. See responses to specific comments in the cited Provisions and as noted at left.</p>

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		<p>presuppose that Co-permittees will begin addressing the requirements prior to the MRP 3 effective date. The Tentative Order also increases tracking and reporting requirements for almost all provisions, including for current programs, with no reason or justification that they have been ineffective in the past. Additionally, justification has not been provided to show how increased reporting and tracking would provide an enhanced benefit to water quality. The City asks that the Water Board consider the requests to adjust timelines and reduce reporting requirements included in the SCVURPPP letter and respective Attachments.</p>		
San Jose – 1	General	<p>The City writes to highlight the provisions that will uniquely impact San José and to provide fact-based analysis for the Water Board’s consideration. This letter highlights the City’s most crucial concerns (Issues 1 - 8), which are: inaccurate references to the Baykeeper Consent Decree, C.3, (New and Redevelopment), C.10 (Trash Load Reduction), C.12 (PCBs</p>	<p>Comment noted. The City’s specific comments are addressed separately in this Response, including proposed responsive revisions.</p>	None.

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		Controls), and C.15 (Exempted and Conditionally Exempted Discharges). In addition, please refer to Att. A: Detailed Comments , for specifics on each of these issues and other challenges in each provision.		
SCVURPPP Legal - 1	General	<p>Nothing is legally deficient about the alternative compliance pathway in the Tentative Order being structured differently than the LA County permit's alternative compliance path.</p> <p>The applicable State Water Board precedent concerning conveying "deemed compliance" status does not constrain the Water Board's proposed approach, dictate a specific type or form of analytical exercise in justifying the selected approach, or require more substance than the Tentative Order and Fact Sheet already provides.</p>	<p>We agree that State Water Board precedent does not constrain the Regional Water Board to developing a permit that mirrors LA's permit. As stated in the Fact Sheet, the State Water Board recognizes that the regions' stormwater permits may not all look alike (See, e.g. State Water Board Order WQ2021-0052-EXEC, p. 64 (“[W]e acknowledge that regional differences may dictate a variation on the [watershed management program] approach.”); State Water Board Order WQ 2020-0038, p. 164 (“This order is not intended to curtail the flexibility of the regional water boards. . . to adopt and develop alternative compliance plans that best fit their particular regions, and does not require modification of programs adopted by other regional water boards.”)).</p> <p>Nevertheless, the Regional Water Board has updated some provisions of the Tentative Order to hew more closely to the principles outlined in State Water Board Orders WQ2021-0052-EXEC and WQ-2020-0038.</p>	Provisions updated as described in the response.

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			For instance, we have augmented receiving water limitations monitoring in C.8.f and updated the monitoring requirements and milestones for C.14.a in response to Baykeeper’s comments.	
SCVURPPP Legal-2	General	“See below.”	None.	None.
SCVURPPP Legal - 2	General	<p>No legitimately claimed legal impediment exists to the staff revising the proposed permit to extend the offset and credit programs throughout the full term of the new permit.</p> <p>The Water Board has the authority to direct the staff to revise C.10.b.iv and C.10.f to maintain the credit and offset programs for the renewed permit’s full five-year term. SCVURPPP again requests that this change be made.</p>	The Water Board disagrees that Permittees can use credits and offsets to achieve the discharge prohibition established by the Trash Amendments. The Trash Amendments require municipal stormwater permittees to achieve zero trash loading by installing full trash capture devices or implementing controls that, in combination, reduce trash discharges to full trash capture equivalency. While credits and offsets may reduce the amount of trash generated, they allow discharges to continue, and so are not compatible with the full-trash capture equivalency standard. However, the underlying source control actions and direct discharge programs may continue to be used as elements of the suite of controls that will achieve full-trash capture, even if they are no longer eligible for a specific credit.	None.
SCVURPPP Legal - 2	General	Fact Sheet Section V.C purports to set forth the legal reasoning supporting the staff’s position that new requirements and provisions in the Tentative Order are not	We disagree with the commenter’s characterization of the two cited cases and with the implication that the requirements of the Tentative Order are unfunded state mandates. The decisions were narrower than	None.

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		<p>unfunded state mandates, but does not adequately address the California Supreme Court's decision in Department of Finance v. Commission on State Mandates (2016) 1 Cal.5th 749 or acknowledge the import of the California Court of Appeal's more recent decision in Department of Finance v. Commission on State Mandates (2021) 59 Cal.App.5th 546. In the former case, the California Supreme Court held that the Commission on State Mandates, and not the State or Regional Water Boards, have jurisdiction to determine whether requirements imposed through municipal stormwater permits exceed those imposed by the federal government even if they are nevertheless directed to the worthy goal of improving water quality. The Commission has previously determined under relevant case law that municipal stormwater requirements not set forth in the federal regulations or more specific and prescriptive than those in federal regulations, constitute state rather than federal mandates. In the more recent</p>	<p>the commenter suggests and they do not affect the Water Board's conclusion that the Tentative Order does not impose any unfunded state mandates.</p> <p>In the referenced California Supreme Court decision, the court found that two requirements of Los Angeles's stormwater permit, a requirement to inspect industrial and commercial sites and a requirement to install trash cans at transit stops, were not required by the federal mandate to reduce pollutants in stormwater to the maximum extent practicable. <i>Dept. of Finance v. Comm. on State Mandates</i> (2016) 1 Cal.5th 749, 770-772. However, the court did not evaluate whether the requirements could potentially have been required under the federal mandate to effectively prohibit the discharge of non-stormwater, or by a Total Maximum Daily Load, and did not definitively conclude that they were unfunded state mandates.</p> <p>In the referenced Court of Appeal decision, the court concluded that while the Los Angeles stormwater permittees had authority to impose fees for inspections of industrial and commercial facilities, they did not have authority to impose fees for the installation of trash receptacles at transit stops on adjacent</p>	

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		<p>case, the Appeal's Court addressed the "unfunded" part of the equation and held that certain of the state mandates at issue were subject to subvention (i.e., effectively suspended until such time as the State provides funding for them) because the local agencies did not have the authority to levy fees sufficient to pay for them under Government Code section 17556(d).</p>	<p>property owners. <i>Dept. of Finance v. Comm. on State Mandates</i> (2021) 59 Cal.App.5th 546, 564-565, 569-570. This ruling reflected the specifics of the trash receptacle requirement, namely that the receptacles had to be placed at transit stops, which are publicly owned, meaning that a fee on nearby property owners to install trash cans there would not necessarily fund a service from which those property owners would benefit. <i>Id.</i>, 59 Cal. App. 5th at 567-569. However, the ruling was not akin to a determination that <i>no</i> stormwater permit requirements could be fee-funded.</p> <p>Neither decision evaluated the effect of the passage of Senate Bill 231, which affirmed that stormwater-related fees are not required to pass by a two-thirds majority (Gov. Code, §§ 53750, 53751). A subsequent decision has determined that the existence of the majority protest process outlined in Govt. Code § 53753 does not negate local agencies' fee authority. <i>Paradise Irrigation Dist. v. Comm. on State Mandates</i> (2019) 33 Cal.App.5th 174, 193-194. That decision concluded that <u>"[s]tatutory authorization to levy fees—rather than practical considerations—conclusively determines" whether a local</u></p>	

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			<p><u>agency has fee authority. <i>Id.</i>, 33 Cal.App.5th at 195.</u></p> <p>The commenter has not explained why, if the Tentative Order’s requirements were determined to be state mandates, the Permittees here would not have fee authority to implement them. After all, multiple Permittees have already passed stormwater fees, as noted in the Fact Sheet. The commenter has not alleged that any of the Tentative Order requirements are akin to the trash receptacle requirement that the Court of Appeal determined could not be funded by a property-based fee.</p>	
SCVURPPP Legal – 3 ACCWP Legal -6	General	Several new and updated provisions in the Tentative Order are unfunded state mandates and should be dropped or made conditional until the State actually provides funds for them. As an example, C.17 newly requires implementation of control measures to address discharges associated with unsheltered homeless populations, a regional problem not even mentioned in the Clean Water Act or federal regulations. C.20 (cost reporting) and C.21 (asset management) are also wholly new, costly,	<p>We disagree that any provisions in the Tentative Order are unfunded mandates. We note that whether or not these provisions could be found to be new programs, the Permittees have fee authority to cover the costs of implementation, as explained in the Fact Sheet (e.g., sections IV.E, Economic Considerations; V.C, State Mandates; and C.3.b).</p> <p>C.17.</p> <p>We disagree that C.17 is an unfunded mandate because it is “wholly new” and “not even mentioned in the Clean Water Act or federal regulations.” First, C.17, which</p>	None.

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		<p>burdensome relative to stretching existing municipal staff resources even thinner, and not mandated in their proposed onerous form by the existing federal regulations. In addition, while not altogether new, the Water Board received extensive testimony in Oct. 2021 concerning the expanded requirements and associated increased cost burdens associated with the proposed monitoring (C.8), and green infrastructure and LID requirements proposed in C.3. Similarly, as discussed above, Receiving Water Limitation B.2. is not required by federal law and the Provisions and requirements tied to it reflect the State's discretionary decision to require municipal stormwater to meet water quality standards. All of these should be modified, deleted, curtailed or, at a minimum, conditioned on the receipt of state funding.</p>	<p>incorporates requirements for controlling discharges associated with unsheltered homelessness, is not new. As noted in the Fact Sheet, C.17 implements the longstanding Basin Plan prohibitions on the discharge of trash and raw sewage (Table 4-1, Discharge Prohibitions 7 and 15), as well as the statewide prohibition on trash discharges of trash in the Trash Amendments. Discharges from homeless encampments were previously required to be controlled under MRP 2 Provisions C.5, which covered dumping and illicit discharges, and C.10, which covered trash discharges. Because the control of discharges from homeless encampments has humanitarian dimensions, in MRP 3, the Water Board distinguishes discharges associated with unsheltered homelessness from other types of illicit discharges or trash discharges. C.17 encourages coordination of water quality-driven actions with other agencies' actions to improve the living conditions of homeless people. However, this change in focus does not make the regulation of discharges associated with unsheltered homelessness a new program. Furthermore, the Water Board's hope is that by examining the ancillary water quality benefits of programs that prioritize improvements to homeless people's quality of life, the Permittees may discover efficiencies that enable them to</p>	

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			<p>save money on stormwater controls at the same time that they address the pressing health and safety concerns of people living on the street.</p> <p>In addition C.17 is required by federal law. In addition, C.17 is required by federal law. Municipal stormwater permits have, since the addition of the stormwater amendments in 1987, been required to “effectively prohibit non-stormwater discharges,” which would include discharges of sewage and trash from homeless encampments. 33 USC 1342(p)(3)(B)(ii). CWA regulations require MS4 permits to prevent illicit discharges, which would also include discharges associated with unsheltered homelessness. 40 CFR 122.26(d)(1)(v)(B), (d)(2)(iv)(B).</p> <p>We disagree that trash fees or other fees or funding could not be used to cover the cost of implementing additional trash controls at homeless encampments. For instance, San Jose has expanded a program in which the homeless are hired to pick up trash around the city using federal funds and allocations from the city’s budget. See “San Jose mayor expands trash-picking program for homeless,” <i>San Jose Spotlight</i> (Sept. 17, 2021). Oakland similarly allocated \$750,000 of its budget to the Downtown Streets</p>	

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			<p>program, which trains homeless individuals to clean up trash. “Cities see trash cleanup programs as a way to combat homelessness,” Pew – Stateline (Oct. 13, 2021). The City of San Francisco spends several million dollars per year on providing portable toilets to homeless encampments. “Bay Area Homelessness: 97 Answers to Your Questions,” San Francisco Chronicle (July 11, 2020); see also “San Francisco Public Toilets Help Homeless, Cost \$200,000,” NBC Bay Area (August 2, 2019).</p> <p>C.3</p> <p>As noted in the Fact Sheet, the requirements of C.3 are also not new programs because they do not discharge a governmental function or apply only to local governments. Private entities under other permits, such as the Construction Stormwater Permit (Order 2009-0009-DWQ) or the Vineyard WDRs (Order No. R2-2017-0033), are routinely required to implement stormwater controls when developing more than a threshold area of impervious surface or to manage stormwater runoff from roads.</p> <p>C.8.</p>	

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			<p>The commenter does not explain which parts of C.8 it believes are new programs. Monitoring generally, however, is not new. MRP 1 and MRP 2 both required monitoring, which is required by the Clean Water Act and its regulations to be included in municipal stormwater permits. See, e.g., 40 CFR §§ 122.26(d)(2)(i)(F), 122.41(h), (j), (l), 122.42(c), 122.44(i), and 122.48; see also 40 CFR 122.26(d)(2)(iii)(A)-(D). All stormwater dischargers, as well as other NPDES dischargers and nonpoint source dischargers, are required to conduct monitoring. Accordingly, monitoring requirements do not implement a uniquely governmental function and are not uniquely applicable to local governments.</p> <p>C.20</p> <p>The Water Board proposes to include Cost Reporting under C.20 in MRP 3 in response both to Permittee concerns about the costs of Permit implementation and to a March 2018 California State Auditor’s report concluding that the Water Boards were not adequately tracking these costs. By requesting this information from the Permittees, the Water Board hopes to “promote greater efficiency, consistency, and transparency related to the [State Water</p>	

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			<p>Board] and [regional water boards'] regulation of a significant source of pollution." State Water Board Order 2020-0038-WQ, p. 28. In requiring cost reporting, the Water Board is requesting information that the Permittees presumably already have and is not requiring Permittees to implement a new program.</p> <p>C.21</p> <p>Similarly, the asset management requirements do not amount to a new program. Instead, the Water Board would like the Permittees to use the information and data they already have about their own maintenance needs and the condition of their hard stormwater assets to prioritize maintenance and repairs. The intent of this requirement is to ensure that Permittees use their limited resources as efficiently as possible and that improvements or repairs are planned in areas where they are needed most or will have the biggest effect. Moreover, 40 CFR § 122.41(e) requires a permittee to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with its permit.</p>	

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			<p>Receiving Water Limitation B.2</p> <p>Receiving Water Limitation B.2 is not a new provision; it was included in MRP 2 and MRP 1 (Order No. R2-2015-0049, p. 5; Order No. R2-2009-0074, p. 8). Moreover, compliance with this receiving water limitation does not require the Permittees to carry out functions “peculiar to government.” The requirement that discharges not cause or contribute to water quality standards violations applies not only to local agencies, but to public and private dischargers across the region and the state. For instance, this receiving water limitation can be found in the wastewater permits for private industrial facilities in the San Francisco Bay Region (e.g., Order No. R2-2016-0047, p. 6; Order No. R2-2021-0029, p. 10), as well as in the statewide Industrial Stormwater and Construction Stormwater General Permits (Order 2014-0057-DWQ, p. 21; Order 2009-0009-DWQ, p. 31).</p> <p>While the Water Board acknowledges that stormwater permit compliance costs money, we disagree that the municipalities lack fee authority to raise it. Moreover, the passage of Senate Bill 231 confirms that voter approval is not needed to approve stormwater fees. See Govt. Code §§ 53750, 53751; <i>Paradise</i></p>	

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			<p><i>Irrigation Dist. v. Comm. on State Mandates</i> (2020) 33 Cal.App.5th 174, 197. The Water Board further disagrees that the funds to pay for stormwater compliance must be the budget of the stormwater program specifically. Monies that Permittees spend on, for instance, trash collection, park maintenance, homeless services and fire prevention may also help comply with the MRP. For instance, as noted above and in the Fact Sheet, the Water Board developed C.17 to prevent Permittees' efforts to achieve trash load reductions from conflicting with their efforts to reduce the number of people living on the street. The Water Board hopes that, with coordination, Permittees will be able to improve the living conditions of their unsheltered homeless residents in ways that also reduce non-stormwater discharges of human waste and trash; and that such coordinated responses will reduce Permittees' combined expenditures on stormwater control and social services.</p>	
ACCWP Legal - 6	General	In addition to the new or updated conditions in the Tentative Order, many of the provisions in the Tentative Order are the subject of two existing test claims currently before the Commission (Test Claim No. 16-TC-03 amended August 14, 2017) and Consolidated Test Claims Nos. 10-	Comment noted. The Water Board acknowledges that Permittees challenged MRP 1 and MRP 2 on mandates grounds and that the Commission on State Mandates has yet to rule on these challenges. As explained above, the Water Board disagrees that the Court of Appeal's decision in <i>Dept. of Finance v. Comm. on State Mandates</i> (2021) 59 Cal.App.5th 546 is directly relevant	None.

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		TC-01, 10-TC-02, 10-TC-03 and 10-TC-05. Test Claim No. 16-TC-03 seeks subvention for, among other things, trash-related programs adopted under the 2015 stormwater permit (NPDES Permit No. CAS612008), for which the Court of Appeal's in Dept. of Finance is directly relevant. The Commission has scheduled tentative hearing for these test claims for May 27, 2022.	because MRP 3 does not require the installation of trash receptacles at transit stops.	
Sunnyvale & Mountain View - 1	General	The cities support and incorporate by reference those comments submitted by SCVURPPP. Due to ongoing litigation, the Cities have a sincere interest in ensuring the clarity of the permit's language and requirements. The Cities focus their comments on the provisions related to fecal indicator bacteria, or FIB. In response to the possibility of a problem with FIB the cities have filed a C.1 report and plan and requested a permit amendment as set forth in C.1.	Comment noted.	See responses to comments on Provision C.14.a.
Sunnyvale & Mountain View - 7	General	The Cities urge the Water Board to make the requested modifications to increase the clarity of the MRP provisions discussed in their comment letter and have provided	Comment noted. See responses to the commenters' subsequent specific requested modifications.	See responses, including responsive edits, to commenters' comments with

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		language revisions as an attachment to this letter.		specific requests.
SCVURPPP - 1	General	<p>The comments and recommended revisions to the Tentative Order included in Att. A and B are based on the lessons learned during the implementation of the current MRP (MRP 2) and previous permit terms. Our comments and recommended revisions are consistent with the following permit reissuance goals expressed by Co-permittees during recent and ongoing discussions with Water Board staff:</p> <ul style="list-style-type: none"> • When developing and adopting the reissued MRP, fully consider the unprecedented situation that Co-permittees are currently facing as a result of the COVID-19 pandemic and associated fiscal impacts; • Recognize and build upon the significant investments made in development of programs, processes, management practices, and standard operating procedures to date in ways that continue to improve and protect water quality; • Provide a clear, data driven, water quality basis for adding or enhancing requirements and 	<p>Please see response above to combined comment:</p> <p>Santa Clara – 1 Palo Alto – 2 Los Altos – 2 SCVWD – 2 Cupertino -1 WVCWPA – 1</p>	See responses, including responsive edits, to commenter’s comments with specific requests.

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		<p>consider the priorities and relationships among various provisions; and</p> <ul style="list-style-type: none"> • Provide more flexibility with options for compliance rather than prescriptive requirements in the MRP. <p>SCVURPPP Co-permittees are concerned that the Tentative Order does not consider the practical input provided by Co-permittees or sufficiently embrace the collaborative approach that we worked to build.</p>		
SCVURPPP - 2	General	<p>The Tentative Order contains substantial new requirements in a number of provisions, most notably C.3, C.10, C.11/C.12, C.15, C.17, C.21, and C.22, all of which have been described as high priority by Water Board staff. As in past permits, these provisions were again developed in “silos” without regard to the combined fiscal and staffing impacts to Co-permittees and the interaction and inconsistency among provisions.</p>	<p>The permit builds upon the last permit and considers feedback provided during both provision-specific workgroup discussions and meetings of the plenary MRP Steering Committee, which included discussion of the combined burden of the Permit’s proposed expectations. The requirements set forth are also considerate to the fiscal and staffing impacts faced by permittees.</p>	None.

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SCVURPPP – 2a	General	<p>The TO does not allow credit for any of co-permittees' good faith efforts, including the planning efforts that would result in construction of new facilities during MRP 3.0, unless projects were completed after January 1, 2021. Additionally, since 2012 (10 years) SCVURPPP has collected over 370 sediment samples and 70 stormwater samples at a cost of over \$2M to identify PCBs source properties, leading to the identification of 41 parcels (182 acres) and the referral of parcels to the Water Board for abatement. These resource intensive and time-consuming investigations led by SCVURPPP have been conducted at a far greater pace than many other stormwater programs. However, the Tentative Order does not acknowledge or consider this level of early implementation and, instead, hastens the pace that investigations would need to occur over the next permit term. This penalizes SCVURPPP Co-permittees, as they have been early (and diligent) implementers</p>	<p>Regarding Provision C.3, see the response below to combined comment:</p> <p>SCVURPPP-2a,4,37 Los Altos-4 San Pablo-5 SMCWPPP-75 CCCWP-21,22 Palo Alto-3.</p> <p>The comment suggests that the Water Board does not sufficiently recognize SCVURPPP efforts conducting source property investigations and even penalizes SCVURPPP co-permittees by hastening the pace of investigations in the next permit term.</p> <p>The efforts being undertaken to control loads of PCBs by SCVURPPP co-permittees are not voluntary efforts that necessarily merit praise or commendation when they are undertaken or performed expeditiously. Rather, these are requirements to implement TMDLs that have been in place for more than 10 years. The Water Board does not make a practice of giving special credit to Permittees simply for complying with permit requirements to prevent pollutants from entering receiving waters. The PCBs TMDL was adopted nearly 12 years ago, so one</p>	<p>See responses, including responsive edits, to commenter's comments with specific requests, and cited response noted in Response, at left.</p>

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		of pivotal stormwater control measures.	<p>would expect that all or nearly all source properties would have been identified by now. SCVURPPP, while having conducted more screening than other programs, has still not completed the task of identifying source properties.</p> <p>The Tentative Order does recognize SCVURPPP's faster pace of source property investigations. Because SCVURPPP has investigated a larger proportion of its old industrial area, SCVURPPP permittees have a smaller performance metric than other Permittees. MRP 3 calls for SCVURPPP to investigate 913 acres of old industrial land use while the performance metrics for San Mateo (1,411 acres), Alameda (2,620 acres), and Contra Costa (1,700 acres) are much larger.</p> <p>It is not true that the Tentative Order requires SCURPPP to conduct investigations at a faster pace than it has been. SCVURPPP has investigated 4,214 acres of old industrial land use over roughly 10 years, or about 2,107 acres during a 5-year period. MRP3 requires SCVURPPP to investigate only the remaining 913 acres. This requirement represents a pace that is less than half of the pace SCVURPPP has been conducting these investigations.</p>	

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SCVURPPP – 2b	General	<p>Since the proposed MRP 3 effective date has been extended to July 1, 2022, requirements that were initially planned to be phased in have been made “effective immediately” or have shortened timelines based on the incorrect assumption that work on certain provisions will begin prior to the effective date of MRP 3. This assumption is inappropriate and unacceptable, as Co-permittees have neither the resources nor the legal responsibility to begin work on draft/ potential provisions prior to the effective date of the reissued permit. Additionally, significantly shortened timelines ignore the original intention of the extension to the permit reissuance, which was to acknowledge that the COVID-19 pandemic has affected Co-Permittee resources and will</p>	<p>Comment noted. The Permit appropriately considers implementation timelines, including with respect to the Permit’s effective date and other factors, such as the time needed to complete monitoring or reporting, and the impacts of the Covid-19 pandemic. Many requirements are ongoing requirements where continued or modestly modified implementation should be straightforward; for new or more-substantially modified expectations, dates were a significant part of workgroup and Steering Committee discussions. In response to comments staff has proposed changes including reductions in reporting and modifications to implementation dates. For example, changes to C.2, C.4, C.5, and C.6 have been reduced to largely conform those to MRP 2; in C.3.b, the implementation of new regulated project categories and updates to thresholds of existing regulated project categories has been delayed by a year; in C.3.j, reporting on Green Infrastructure Plan implementation</p>	<p>See responses, including responsive edits, to commenter’s comments with specific requests, and response noted in Response, at left. Changes made as noted herein.</p>

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		<p>affect the feasibility of implementing new requirements for the next few years. The schedules for completing requirements during the term of the reissued permit should be adjusted, as described in Att. A and B, to provide adequate time to allow Co-permittees to successfully achieve the goals of the requirements.</p>	<p>has been reduced to twice during the permit term from annual; in C.15, the Firefighting Discharges Work Group reporting expectation has been reduced to a single final report from two (a draft and a final); and in other provisions, including C.8 and C.20, reporting dates have been delayed.</p> <p>See also response above to combined comment:</p> <p>Santa Clara – 1 Palo Alto – 2 Los Altos – 2 SCVWD – 2 Cupertino -1 WVCWPA – 1</p>	
SCVURPPP – 2c	General	<p>A key goal of MRP 3 discussed with Water Board staff was to continue to achieve consistent implementation across the SF Bay Area with respect to “core” municipal stormwater management program elements (e.g., C.2, C.4-C.7). This goal included reducing costly changes to Co-permittee programs that can be avoided. Instead, in C.2, C.4, C.5 and C.6, there were revisions made in every sub-provision, which include additional tracking and reporting</p>	<p>In response to commenters’ concerns about additional reporting, we have proposed reducing or eliminating proposed reporting in the following places:</p> <p>C.2.a.iii C.2.b.ii C.2.c.iii C.2.h.iii C.4.d.iii C.5.e.iii C.6.f.iii</p>	<p>See responses, including responsive edits, to commenter’s subsequent comments with specific requests. Changes made as noted herein.</p>

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		<p>requirements. Many of these revisions do not reflect an understanding of the successful development and implementation of these programs over the past 20 years and ignore previous beneficial collaborations and agreements reached among Co-permittees and Water Board staff on the scope of these effective and model programs.</p>	<p>C.15.b.iii</p> <p>Although the additional reporting requirements would allow the Water Board to more specifically evaluate what sites have repeated, escalated, or unresolved enforcement actions, as well the appropriateness of specific BMPs used in municipal operations, for the coming Permit term we will only require that the information and supporting documentation be made available during inspections or upon request by Water Board staff. If we determine through inspections or audits that there are specific concerns with inappropriate or inadequate BMPs, or sites that are not appropriately being addressed to resolve violations or referred to the Water Board for escalated enforcement, we will consider updating reporting requirements to address this in a future permit reissuance.</p>	
SCVURPPP – 2d	General	<p>The Tentative Order increases tracking and reporting requirements for core municipal stormwater program elements as well as other existing provisions with no reason or justification that current programs are not effective, nor that increased reporting and tracking would provide an</p>	<p>As noted above in response to comment SCVURPPP – 2c, we have reduced tracking and reporting requirements in response to commenters’ concerns. Where we have not reduced reporting, we have provided explanations of the utility of the information.</p>	<p>See responses to commenter’s comments with specific requests. Changes made as noted herein.</p>

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		enhanced benefit to water quality. This increase in tracking and reporting requirements for core programs is in addition to the new tracking and reporting requirements associated with new provisions included in the Tentative Order and is counter to Water Board staff's originally stated goal to reduce reporting requirements throughout the permit.		
Oakland & San Jose - 1	General	<p>We request the next MRP contain feasible and achievable mandates to enable our cities to make meaningful progress toward bettering our environment.</p> <p>The Tentative Order contains provisions which impede, rather than facilitate, our cities' progress toward a better environment. If the Tentative Order is adopted as it is currently written the cities of San José and Oakland, in addition to other cities, will encounter significant obstacles.</p>	It is unclear to which provisions or significant obstacles the commenter is referring. We believe the Tentative Order's requirements are both feasible and achievable to control the discharge of pollutants from MS4s.	None.
San Mateo County - 1	General	The County has identified several areas of concern in the Tentative Order and supporting documents that could hamper our ability to effectively improve water quality in	As noted above, in response to comment SCVURPPP – 2c, we have reduced reporting requirements in places where they are not necessary. We have also changed wording	See responses to commenter's comments with specific requests.

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		<p>San Mateo County. In particular, some of the provisions add administrative reporting burdens, significantly increase capital costs of infrastructure improvements, set potentially unachievable targets, and decrease flexibility for adaptive implementation of stormwater requirements.</p>	<p>in places to add flexibility. These provisions include:</p> <p>C.2.f.ii C.8.d.iv C.8.e.iii C.15.b.iii C.17</p> <p>We disagree that the targets set by the permit are unachievable. These targets are either dictated by state and federal law, or by previously adopted TMDLs; Permittees have, through successive permit terms, made substantial progress toward achieving these targets. For instance, despite vociferous objections that 80% trash reductions could not be achieved in the previous permit term, all but a handful of Permittees were able to achieve this milestone by the deadline in MRP 2, and the Permittees who did not have all since done so.</p>	<p>Changes made as noted herein.</p>
<p>San Mateo County - 2</p>	<p>General</p>	<p>The County supports the intentions of MRP 3 to improve water quality in local creeks, the Bay, and the Pacific Ocean and to meet water quality standards pursuant to the Clean Water Act. Stormwater management is increasingly an important factor in ensuring our</p>	<p>Comment noted. We appreciate San Mateo County's efforts.</p>	<p>None.</p>

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		community remains resilient and our natural resources are protected. The County is committed to improving stormwater management practices and has been collaboratively working with the Water Board, municipalities, local agencies, and the community even before the adoption of the first MRP in 2009.		
San Mateo County – 3,8	General	Increased reporting requirements will require additional staff time for data collection, analysis and reporting. In many instances, the compounding requirements seem overly prescriptive and burdensome without any direct water quality benefits or documented need for enhanced reporting measures. Given the number of permittees subject to MRP 3 and the significant number of reporting requirements, the County is also concerned that many of these submittals will go unread by regulators without increased staff capacity. Remove or reduce extraneous reporting requirements with unclear connections to water quality benefits	See responses to comment SCVURPPP 2c and San Mateo County 1 for provisions we have simplified either to reduce reporting or to increase flexibility. See also response to combined comment CCCWP-3, CCCWP-4.	See responses, including responsive edits, to commenter’s comments with specific requests. See also response noted in Response, at left. Changes made as noted herein.

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Woodside – 1-6, 9-10, and 12	General	<p>The Town is a member of the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) that has separately submitted comments.</p> <p>While the Town has significant concerns with many of the provisions of the Tentative Order that are detailed in SMCWPPP's letter, the Town is particularly concerned with two of the changes in C.3: Overall, there appear to be very few provisions in the draft MRP 3 that sufficiently recognize the unique characteristics of Woodside and other similar rural communities, nor is there any provision to exempt or lessen in any way the requirements of C.3.b, in particular, on these communities. The Town is supportive of water quality health and has protections for water resources already embedded in its General Plan, Municipal Code, and development review policies. Town staff feels the changes in MRP 3 in general, as detailed in the SMCWPPP letter, represent a major new unfunded regulatory burden with some provisions</p>	<p>Comment noted. We recognize the work Woodside has done and continues to do to protect the environment. The Tentative Order has been modified in response to comments. To the extent the commenter is saying any changes have to be re-noticed, the commenter is incorrect. A final permit does not be identical to the draft permit; if it did, it would be antithetical to the whole concept of notice and comment. A final permit that departs from a draft must be a logical outgrowth of the noticed proposal and the comments received. The changes here are a logical outgrowth and as such, do not need to be re-noticed. The public will have an opportunity to orally comment on the changes during the Board hearing changes.</p> <p>Please see also responses to comments:</p> <p>For C.3.b, in C.3, below:</p> <p>Hillsborough-5 and Woodside-8.</p> <p>For prioritization and water quality benefit:</p> <p>Fact Sheet sections for all provisions, and particularly C.3, C.10, and C.17.</p> <p>For unfunded mandates:</p>	See responses to specific SMCWPPP comments, Hillsborough – 5, and Woodside - 8.

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		<p>having no or very little commensurate environmental or water quality benefit. The Town requests that the recommendations in the SMCWPPP letter be followed and that a revised draft MRP be issued for public comment.</p>	<p>SCVURPPP Legal – 2 and Combined comment SCVURPPP Legal – 3 ACCWP Legal - 6</p>	
<p>Hillsborough - 1,4</p>	<p>General</p>	<p>The Town is a rural, sparsely populated, densely forested community of about 10,900 residents within 6.25 square miles. As in many rural communities, the Town does not have a traditional storm drain system. Many of our roads drain directly to pervious shoulders and naturally vegetated areas. The Town has 162 lane miles of roadway, but only 35 miles of storm drains. While the Town shares the Water Board's overall objective of protecting water resources, unfortunately Town staff finds that the proposed regulations in MRP 3 impose very onerous and costly new stormwater design, construction, reporting, and inspection requirements on the Town and its residents, with little environmental or water quality benefit. In conclusion, the changes in MRP 3</p>	<p>Please see response, above, to: Woodside – 1-6, 9-10, and 12</p>	<p>See response to Woodside – 1-6, 9-10, and 12.</p>

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		in general, as detailed in the SMCWPPP letter, represent a significant new unfunded regulatory burden without fully understanding how they would actually apply to municipalities with our unique residential characteristics and large lots.		
SMCWPPP - 1	General	<p>Att. 1 provides larger picture context regarding existing and planned stormwater runoff management approaches, accomplishments, and commitments, and context on old industrial areas in San Mateo County.</p> <ul style="list-style-type: none"> • Att. 2 provides sub-provision specific comments and specific requested revisions, with higher priority sub-provisions highlighted. • Att. 3 provides specific recommendations for language changes (in redline/strikeout) to selected parts of C.3 (and associated Fact Sheet and Glossary language), C.4, C.5, C.8, C.10, and C.15. The recommended language changes are consistent with the comments provided elsewhere in this letter and its other attachments but are provided separately to elucidate 	Comment noted. This comment describes how the commenter's comment letter is organized.	None.

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		<p>specific issues of concern for San Mateo County Permittees. To reiterate, these are requested provision-specific track-change modifications for select portions of the permit. For the comprehensive program comments across all provisions of the Tentative Order, refer to Att. 2.</p>		
SMCWPPP - 2	General	<p>San Mateo Permittees have been leaders in adopting progressive stormwater policies, developing comprehensive, integrated plans, and implementing GSI and trash capture. The prescriptive approach of the proposed MRP 3 requirements will stifle innovation, slow progress, and pose challenges that will make it even more difficult to achieve our shared water quality improvement goals. We respectfully request a reissued MRP with flexible and adaptable mandates that would allow us to continue leading on innovative stormwater management both in an efficient and cost-effective manner. Your staff is challenged to craft regulatory requirements for 79 Permittees that provide room to move for the innovators and hold accountable those that are</p>	<p>Comment noted. We recognize SMCWPPP’s progressive work and progressive efforts by San Mateo permittees, which have resulted in effective projects and set the stage for additional implementation. Comment SMCWPPP-2 does not identify specific parts of the Tentative Order that are problematic. However, subsequent SMCWPPP comments identify particular concerns and those are responded to separately.</p> <p>Overall, the Revised Tentative Order appropriately incorporates strong, yet flexible requirements that consider and build on past work while recognizing the need to timely address ongoing water quality problems, including impairments. For example, C.3 and C.10 retain the flexibility to address water quality problems at different scales (e.g., by implementing GSI or full trash capture devices at parcel, green street, district, or regional scales), and C.11 and C.12, while</p>	<p>See responses, including responsive edits, to subsequent SMCWPPP comments.</p>

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		<p>challenged to keep up with baseline efforts. We are committed to working with your staff to develop a regulatory framework that incentivizes progressive action, provides accountability for all, and gives flexibility to recognize the highly variable nature of those 79 Permittees. MRP 3 needs to be visionary, building in regulatory flexibility that drives implementation yet works for all.</p>	<p>requiring progress in achieving reductions in mercury and PCBs, retain flexibility for how to achieve that progress. While they recognize the need to complete work on source control evaluations, control of mercury or PCBs discharges from Old Industrial or Old Urban land uses, for example, may be accomplished via a variety of measures, including GSI and diversion to the sanitary sewer. Similarly, while C.3 has been updated as compared to MRP 2 to reflect the current status of MEP with respect to Regulated Project impervious surface thresholds, and to support Permittee GI planning efforts by requiring modest GI retrofit, it has incorporated measures to recognize recently-implemented progress, support and account for retrofit at a variety of scales (including for significant street reconstruction Regulated Projects, and a reduction in retrofit requirements to recognize Permittee implementation of ordinances to support fully accounting for private project impacts to street frontage), and allow flexibility via its existing alternative compliance subprovision, as well as the development of new approaches that could be incorporated into the permit in a future reissuance.</p>	
SMCWPPP - 3	General	<p>Water Board staff have proposed unachievable objectives in the Tentative Order and removed</p>	<p>Comment noted. Please see response to SMCWPPP-2 and to specific subsequent SMCWPPP comments. In addition, please</p>	<p>See responses to subsequent SMCWPPP</p>

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		<p>flexibility that fosters innovation while meeting the overall objective of improving water quality. In response, we submit that the “status quo” of strong yet flexible drivers in MRP 2 has provided the right balance of flexibility and prescriptiveness to support permittees in developing cost-effective, efficient and creative strategies towards meeting the overall water quality endpoints detailed in the permit. While we recognize the need to advance additional water quality goals and meet current regulatory timelines, we also urge the Water Board to carefully consider priority goals for the next permit term and to maintain the existing framework characterized by incentives to collaborate, promote multi-benefit project implementation, and allow permittees to meet compliance targets in the way that works best at the regional, countywide, or local level.</p>	<p>see also response, above, to combined comment:</p> <p>Santa Clara – 1 Palo Alto – 2 Los Altos – 2 SCVWD – 2 Cupertino -1 WVCWPA – 1</p>	<p>comments and as noted herein.</p>
SMCWPPP – 4,5	General	<p>The progressive efforts of C/CAG and San Mateo County permittees towards meeting and exceeding existing requirements in the MRP,</p>	<p>Comment noted. Please see response to SMCWPPP – 2 and 3.</p>	<p>See responses to subsequent SMCWPPP comments and as noted herein.</p>

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		<p>have been driven or supported by three key components:</p> <ol style="list-style-type: none"> 1. Strong, but flexible drivers in the MRP, such as the MRP 2 goal to reduce PCB loads to the Bay by specific amounts via GI by 2040 (and beyond) that allow each Permittee to determine the stormwater management approach that makes the most sense for their community. 2. An influx of outside financial or technical resources, including over \$30 million in partnership funding from Caltrans for regional stormwater capture and trash capture projects, nearly \$1 million in grant funding from Caltrans for the Sustainable Streets Master Plan, \$3 million from the State budget and \$500,000 from U.S. EPA to advance regional stormwater capture. <p>Without a combination of these components (flexible drivers, funding, planning), it becomes much more challenging to continue advancing progressive stormwater</p>	<p>We agree that funding is a key component of implementation. Please see Fact Sheet sections IV.E, Economic Considerations, and V.C, State Mandates, for a funding discussion. C.3 retains the flexibility for progressive approaches. Also, through recognizing revised impervious surface thresholds for Regulated Projects, it provides both additional expectations for project-specific implementation and additional opportunities for Permittees, via their GI Plans and the C.3 alternative compliance provision, to implement prioritized GI projects, including those that may result in a range of co-benefits, and district- or regional-scale projects that may have lower unit costs as compared to smaller-scale parcel- or green street-scale projects. As such, C.3 reinforces the Permittees' work on GI Plans, and CCAG's work on the guidance including the Sustainable Streets Master Plan, by setting expectations that the GI envisioned in the plans be implemented over time. That is similarly reinforced by C.11 and C.12, which recognize the pollutant reduction benefit of GI measures with respect to reductions in mercury and PCBs. Flexibility has been retained, in part, through C.3.j's modest expectations for GI retrofit in the coming permit term, combined with C.3.j.ii.(4), developed in coordination with the Permittees, and which gives Permittees an</p>	

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		<p>management, and as a countywide program, we become limited in the ways we can support the San Mateo County Permittees to achieve compliance with the MRP and work creatively to innovate towards greater sustainable infrastructure and water resiliency outcomes. The Tentative Order takes away the first driver by establishing an extremely prescriptive set of requirements that apply equally to all Permittees. That prescriptiveness, especially in C.3, disincentivizes innovation and effectively makes Green Infrastructure Plans, which Permittees expended significant efforts in developing, irrelevant by specifying exactly when and where GI must be implemented. While C/CAG and its member agencies can continue pursuing external sources of financial and technical resources, there are limits to how much can be achieved within a five-year permit and practical limitations such as requirements for matching funds or voter approval requirements for new or increased stormwater fees.</p>	<p>option to propose a long-term implementation approach for future permit terms, and C.3.j.ii.(2)(i), which gives more-rural Permittees an option to propose alternative green infrastructure techniques, beyond the flexibility inherent in the Permit's existing LID approach, for future permit terms.</p>	

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		<p>Additionally, an overly prescriptive permit will reduce the countywide program's ability to continue advancing the types of projects that are competitive under many relevant grant programs, i.e., focus on multi-benefit, integrated planning and infrastructure projects with a strong emphasis on additional co-benefits, including climate adaptation and community resiliency projects, pro-bono support from American Rivers, Corona Environmental, and WaterNow Alliance to explore innovative and market-based funding and financing strategies, and nearly \$100,000 in grant funding from the Bay Area Council to advance schoolyard greening in the San Carlos School District.</p> <p>3. Progressive planning efforts for integrated, multi-benefit stormwater management such as the Stormwater Resource Plan, Sustainable Streets Master Plan, Green Infrastructure Plans, and current efforts related to collaboration on countywide-scale stormwater management.</p>		

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SMCWPPP - 41	General	Given the challenges of digesting the totality of the Tentative Order and coordinating comments from 22 Permittees in a 60-day window, C/CAG and its member agencies are open to continued discussions with Water Board staff over the coming weeks of meaningful approaches to achieving water quality improvement prior to adoption of the permit.	Comment noted. Water Board staff has continued to meet and communicate with Permittees since the Tentative Order's release, including in workgroup and smaller meetings on C.3, C.8, C.11, C.12, and C.14, the plenary MRP Steering Committee, and a two-day Board meeting at which Permittees and other stakeholders gave testimony on the Tentative Order.	None.
F5C - 1	General	Language in the draft MRP, with respect to homelessness, appears to give local governments a five-year free pass with no practical threat of sanctions for pollution from encampments. From experience, we believe that this seems unlikely to contribute to a solution. It could make things worse for both the homeless and our waters.	Comment noted; see response to Friends of 5 Creeks – 2 in C.17	None.
F5C - 4	General	These are not theoretical considerations for our volunteers. Our small, donation-supported organization pays almost \$500 a month for a portable toilet on Codornices Creek, installed early in the COVID crisis after we photographed more than a dozen piles of feces on a short reach. None of Albany, Berkeley, or UC	The Water Board readily acknowledges the magnitude and complexity of the problem of homelessness. As the commenter points out, the trash and human waste that accumulate around encampments threaten not just water quality, but the health and safety of the unhoused. Nevertheless, the Water Board is not in a position to provide broad solutions to these problems. The Water Board has no control over municipalities' use of their	None.

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		<p>Berkeley has been willing to help, despite a \$500,000 maintenance fund for the creek that we rediscovered after they all forgot its existence. We tried for years to get permission to install a closed cigarette urn, so that homeless smokers would not rummage through butts and dump them at the edge of Codornices Creek (Finally, we just put it in). Pre-COVID, we got a collective yawn when we suggested hiring homeless people from the shelter next to the creek to help pick up trash. We pay for the trash bags that we try to distribute to campers who might use them. Currently, one reach of Codornices Creek is posted as “biohazard – do not enter” due to needles. We cannot go to another reach, where our volunteers for close to 20 years provided nearly all maintenance -- tents and a solid paving of trash block the trail and cover much of the bank, and the smell of feces and urine is obvious. It is not humane to allow people to live in this way.</p>	<p>maintenance funds, for instance, or direct ability to manage or improve the sanitary conditions at homeless encampments. C.17 is designed to prompt regionwide and inter-agency collaboration to reduce discharges associated with unsheltered homelessness and to encourage the Permittees to consider the water quality benefits of non-MRP-driven programs, such as temporary housing programs, that address homelessness.</p> <p>As noted in responses SCVURPPP Legal and ACCWP Legal comments, the Water Board asserts that the Permittees have authority to impose fees or use other funds to pay for trash or sanitation services at homeless encampments. Many Permittees do, in fact, fund such services. In addition, many Permittees, such as Oakland, San Jose, and Palo Alto, do have programs in which homeless people are paid to pick up trash.</p>	
Save the Bay - 1	General	As you deliberate the third iteration of this order, we urge the inclusion	Comment noted. The Water Board agrees that climate change is exacerbating threats	This is a general comment. See

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		<p>of specific and measurable requirements and an ambitious compliance timeline to ensure the Bay and its beneficial uses are protected from trash and other stormwater pollution with a great sense of urgency. Climate change is exacerbating water quality threats to the Bay, and stormwater will be the pathway for most of these threats. Accordingly, now is the time to demand adaptive management and accountability for required outcomes from permittees, not to loosen restrictions. The pandemic has presented numerous challenges to local government, but the state simultaneously experienced a budget windfall that will make hundreds of millions in new funding available for climate resilience projects, including those focused on stormwater management and green infrastructure. With that in mind, we offer specific recommendations to ensure that by the end of the next permit term, the Bay is more – not less – protected from water quality and climate threats.</p>	<p>to water quality in the Bay. C.21 specifically requires Permittees to take climate change into account when developing an asset management strategy. We disagree that MRP 3 proposes to loosen restrictions. MRP 2 requirements would be retained or modestly revised to be more protective in MRP 3 for provisions including C.2, C.4, C.5, C.6, C.7, C.9, and C.13. In addition, the Tentative Order would require Permittees to comply with a 100 percent trash load reduction by June 30, 2025, to achieve significant milestones in PCBs and mercury reduction, and to implement significantly more LID and green infrastructure than required under the previous permit. Those requirements build on actions completed under MRP 1 and MRP 2, including previous PCBs and mercury control actions, Green Infrastructure Plan development, planning for multi-benefit green infrastructure project implementation (for example, coordinated with complete streets projects), and trash control implementation. The Permit also would provide additional focus on discharges of trash and human waste associated with unsheltered homelessness.</p>	<p>Response to Comments sections for cited provisions for specific changes.</p>

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Dublin – 7	General	Please revise the reporting requirements as described in Table 1 in the ACCWP comment letter on the Draft Tentative Order dated November 16, 2021.	<p>Comment noted. In response to this and other comments, we have proposed changes to reporting, including reductions in the number of reports and frequency of report submittals, and in some cases delays to the due date of reports. These are addressed in the response to provision-specific comments on those issues.</p> <p>Please see also responses, above, to SCVURPP-2c, San Mateo County-1, Dublin-7, to combined comment:</p> <p>Santa Clara – 1 Palo Alto – 2 Los Altos – 2 SCVWD – 2 Cupertino -1 WVCWPA – 1</p> <p>and to combined comment: CCCWP-3, CCCWP-4.</p>	Please see the responses to provision-specific comments on reporting, and as noted herein.
ACCWP – a.10	General	There is a significant increased level of general reporting being proposed throughout the tentative order with a schedule of deliverables with challenging timelines due to the number of deliverables required to be submitted at or near the same	<p>Please see responses, above, to SCVURPP-2c, San Mateo County-1, Dublin-7, to combined comment:</p> <p>Santa Clara – 1 Palo Alto – 2 Los Altos – 2</p>	See response to referenced comments.

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		timeframe. Reporting should be re-evaluated in terms of priority, applicability, and the perceived benefit to water quality.	SCVWD – 2 Cupertino -1 WVCWPA – 1 and to combined comment: CCCWP-3, CCCWP-4.	
ACCWP_Legal 3	General	Some Provisions would require Permittee commencement of activities in order to achieve compliance with the new MRP prior to MRP adoption and prior to its effective date. Examples include: C.8 monitoring- C.8.d.ii. - Draft LID monitoring Plan to TAG; C.8.d.vi. - Final LID Monitoring Plan; C.8.e.v. - Initial Trash Monitoring Plan; C.8.e.iii. - Begin Trash Monitoring -C.12.b-i. PCB related provisions. Most obviously, C.12.c. would require Permittees to submit a treatment plan by Sept. 30, 2022 (with the annual report).	Please see responses, above, to SCVURPP-2c, San Mateo County-1, Dublin-7, and to combined comment: Santa Clara – 1 Palo Alto – 2 Los Altos – 2 SCVWD – 2 Cupertino -1 WVCWPA – 1	See response to referenced comments.
ACCWP_Legal 5	General	We object to having the reissued MRP incorporate the Fact Sheet by Reference (Finding 1) rather than to refer to the Fact Sheet's availability and existence. Incorporation of the Fact Sheet is legally inappropriate – under the NPDES regulations, a fact sheet is	The Fact Sheet contains the basis for the draft permit's conditions, or findings, as required by the NPDES regulations (40 CFR §§ 124.6, subd. (e); 124.8). The Board has incorporated the Fact Sheet into the draft permit, just as it incorporates fact sheets into all the NPDES permits it issues, in order to make the findings required by law to support	

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		<p>only supposed to “accompany” a draft permit and set forth facts and describe questions considered in preparing it; it is not supposed to piecemeal the permit and contain what amounts to additional findings or requirements themselves. See 40 CFR §§ 124.6, 124.8. We request that the language referring to the Fact Sheet being “hereby incorporated by reference” be changed to reference the fact sheet as setting forth facts and describing questions considered in preparing the permit.</p>	<p>its action (See Topanga Assn for a Scenic Community v. County of Los Angeles (1974) 11 Cal. 3d 506, 513-514). The federal regulations’ requirement that fact sheets “accompany” NPDES permits does not prohibit the fact sheets’ incorporation by reference into those permits. Here, incorporation of the Fact Sheet into the permit enables the Board to avoid repeating the Fact Sheet’s contents in the permit, which would make the already lengthy permit unnecessarily repetitive and unwieldy.</p>	
Solano - 1	General	<p>The entities listed (City of Fairfield, Suisun City, Vallejo, & Vallejo Flood & Wastewater District - aka Solano Permittees) have drafted a Memorandum of Agreement (MOA) to formalize our structure to jointly collaborate to achieve MRP3 objectives (Att. A). We anticipate finalizing the MOA prior to the issuance of MRP 3 and request section 6 and 7 be combined to reflect our consolidated efforts as the Solano Permittees Stormwater Program. The signed MOA will be shared</p>	<p>Comment noted. We look forward to seeing the finalized MOA and have updated references to the Solano Permittees’ Stormwater Program.</p> <p>We have also corrected references to the Vallejo Flood & Sanitation District.</p>	<p>Updated and/or corrected references to the Solano Permittees’ Stormwater Program and the Vallejo Flood & Sanitation District throughout the Tentative Order.</p>

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		<p>with the Water Board as soon as it is finalized.</p> <p>Also, the Vallejo Flood & Wastewater District is incorrectly named as Vallejo Sanitation and Flood Control District and Vallejo Sanitary District in various locations in the Tentative Order.</p>		
Caltrans - 4	General	<p>The MRP has many permittee-level education and outreach requirements, translating to compartmentalized efforts. A state- or region-wide campaign in partnership between other MRP permittees, stakeholders, and Caltrans may have an impactful long-term benefit. The MRP should incentivize regional approaches by allowing trash load reduction credits for public education about stormwater management and impacts to receiving waters to enable change in behavior.</p>	<p>The Water Board agrees that partnerships among MRP permittees, Caltrans, and other stakeholders can have long-term benefits. Several provisions of the MRP do incentivize regional approaches to trash load reduction, such as C.10.e.iii and C.17.a.i.2.c. The Water Board disagrees, however, that trash reduction credits should be allowed for regional public education programs about stormwater management. The effects of public education on behavior are, at best, indirect and difficult to quantify. Moreover, public education about stormwater management, specifically, has been commonplace for several decades now and it has had no discernible impact on the amount of trash in waterways. The Water Board sees no reason to provide credits for an ongoing activity that has not historically correlated to reductions in trash generated or discharged.</p>	None.

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MRP 3 Testimony Hearing Transcript, October 12, 2021, Mitch Avalon, CCCWP – Page 71, Line 4-9	General	There has also been an increase in reporting, tracking and monitoring going into MRP 3. We looked at the amount of new reports and submittals and there's 127 new reports and submittals in MRP 3, above and beyond MRP 2, which is significant.	Please see responses, above, to SCVURPP-2c, San Mateo County-1, Dublin-7, to combined comment: Santa Clara – 1 Palo Alto – 2 Los Altos – 2 SCVWD – 2 Cupertino -1 WVCWPA – 1 and to combined comment: CCCWP-3, CCCWP-4.	See responses to cited comments.
MRP 3 Testimony Hearing Transcript, October 12, 2021, Kelly Abreu – Page 97 (Line 10- 25), 98 (Line 1-25), 99 (Line 1-1)	General	The Water Board needs local agencies to cooperate in obtaining voluntary compliance with NPDES requirements. Numerous regulations are already in place. And the Permittees would like to loosen them. They'd like to tout agricultural open space zoning, the Williamson Act contracts, grading permits, water course protections. In spite of this, we have seen structural noncompliance by local land use authorities. Alameda County and its dependent water agencies in Zone 7 are flouting stormwater reporting. Impervious surfaces are constructed without	Comment noted. The Water Board expects compliance with all stormwater permits and investigates specific complaints of non-compliance.	None.

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		<p>permits. Aerial images show grading, graveling and paving at large rural parcels. The aerials reveal unpermitted construction of industrial stockyards, roads, RV lots, and landfills of construction debris. Large projects have been constructed without any inspections.</p> <p>These images show, in fact, several new storm drains were reconstructed recently without any permits in a remote canyon near Castro Valley and Palomares Creek. It was very specific. Your staff has been provided those aerial images. Those storm drains are unmapped. The permittees fly under the radar. They're incapable of independent implementation. So, let's stop relying on pretty maps that show half the county is protected by agricultural zoning, and conservation easements. The aerial images are a good starting point for cost effective verification that starts from the ground up. Tweaking MRP 3 is only the first step. Clean water goals require an enhanced oversight of local land use authorities through judicial</p>		

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		<p>actions and leadership restructuring. True collaboration will require more than open minds. It requires accountability. Regulators need to open their eyes to drill down into the aerial images and uncover the ground truth.</p>		
<p>MRP 3 Testimony Hearing Transcript, October 13, 2021, Kelly Abreu – Page 4 (Line 21-25), 5 (Line 1-25), 6 (Line 1-1)</p>	<p>General</p>	<p>Yesterday’s focus was on stricter stormwater regulation of urban construction projects was the assumption. Street maintenance, we saw pictures in dense cities, sponsored by public agencies on public streets. There was concern raised by the permittees about cost impacts, red tape. The Board echoed those concerns. Looking for more efficient ways to obtain the regulatory outcomes.</p> <p>The current regulatory framework overlooks construction of new private roads, industrial stockyards, landfills, and large scale grading, graveling and paving projects in rural areas. These are overseen by the same Permittees we heard from yesterday, county agencies.</p> <p>The lack of voluntary compliance in the rural countryside is easily</p>	<p>The purpose of the Tentative Order is to regulate the discharge of pollutants from municipal separate storm sewers. The comment is unclear as to which regulations are not being complied with in rural areas. Grading permits for private ranch roads are beyond the scope of the order.</p>	<p>None.</p>

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		<p>observed in aerial images because the scale of these projects is huge.</p> <p>One example, old, narrow, dirt ranch roads are widened, regraded, paved. They have stormwater drains and pipes installed, and then they call that, you know, a little road maintenance and it doesn't need a grading permit.</p> <p>This kind of compliance out there in the rural countryside needs to be -- the existing regulatory framework is not being adhered to. And pretending like we're tightening when, in fact, the holes in the Swiss cheese are everywhere. It does not conform with reality.</p>		
<p>MRP 3 Testimony Hearing Transcript, October 13, 2021, Jovan Grogan, San Bruno – Page 32 (Line 21- 25), 33 (Line 1-25), 34 (Line</p>	<p>General</p>	<p>I want to talk about San Bruno's recent effort to increase funding to our stormwater enterprise, to highlight the practical challenges of funding stormwater utilities.</p> <p>San Bruno operates five utilities. Garbage, a cable and internet franchise. Potable water system, a sewer system, and stormwater. Stormwater is the only utility where</p>	<p>Comment noted. The Water Board has considered funding authority and capacity among the many issues considered in the permit reissuance. Please see Fact Sheet sections IV.E, Economic Considerations, and V.C, State Mandates. In addition, please see:</p> <p>In C.3: Save the Bay – 2</p>	<p>See responses to cited comments.</p>

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1-25), 35 (Line 1-25), 36 (Line 1-25)		<p>we have to ask the customers, property owners to pay for the system. That's an important consideration when we talk about the impact that funding stormwater has on local municipalities.</p> <p>It's the only utility where we have to ask customers if they want to pay for it. They all benefit from it, but they get to elect whether they pay for it.</p> <p>A little bit about San Bruno's stormwater system. Our fee has not changed since 1994. We know we have \$30 million of capacity improvements from a study that was done several years ago. We have stormwater condition improvements that we know are needed, of over \$22 million.</p> <p>The new permit requirements will add significant additional costs. And we're currently calculating what that means to our system.</p> <p>San Bruno's not unique in that our system is aging. Much of it dates back to the early 1900s. Right now, the utility does not recover</p>	<p>CCCWP – 12</p> <p>Oakland – 7</p> <p>SCVURPPP-3b, 29</p> <p>Hillsborough-3, Woodside-8</p> <p>In C.20:</p> <p>Baykeeper-24.</p>	

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		<p>enough money to cover ongoing maintenance, nor capital costs.</p> <p>We're really in a tough situation in how do we fund just capacity improvements because we are a growing area, as well as how do we fund all of the requirements of stormwater, repairing broken pipes, and the new permit requirements.</p> <p>So, here in our city we have a real flooding challenge, and we were able to frankly make the case to the community that flooding here happens not just in our lower lying areas, but everywhere.</p> <p>And so, we recently undertook a Prop. 218 effort, and we have really good evidence. We had evidence of major floods, from a major storm in 2014 that flooded a significant part of our downtown, areas along El Camino Real were impassable. And it's due to our system not being able to handle storm surges and the need for those capacity improvements. And we thought these images would</p>		

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		<p>catalyze our citizenry to realize that this is a real issue.</p> <p>We also nearly lost a roadway because a stormwater pipe eroded part of a hillside and we had to spend over a million dollars immediately to repair that.</p> <p>We did robust public outreach. This was an all out effort to educate our community about stormwater. And we lost resoundingly, 64 percent of the community of our property owners said no, we don't want to pay the additional cost for this utility.</p> <p>The increase that we were asking for was \$9 a month, approximately \$150 a year for your median, single-family home in our community.</p> <p>Key takeaways are the MRP requirements can create not an unfunded mandate, almost an unfundable mandate to public agencies. And stormwater funding really presents a unique challenge.</p>		

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		<p>And public agencies, while we agree we have the statutory authority to levy stormwater fees, but unlike all other utilities we don't have the unique ability to impose those fees.</p> <p>And so, we have to ask property owners if they would like to pay for the utility, or you could do a partial tax or bond where you're shifting the electorate from property owners to registered voters, but you still have to ask to pay for the utility.</p> <p>And this is, said sort of bluntly, in the draft Tentative Order and I include a quote from there: Fee authority is a matter governed by statute, rather than the factual considerations of practicality.</p> <p>I want to encourage the Board to consider that practical reality of these permits and partner with public agencies. While we agree that protecting water quality to the Bay and green infrastructure are worthy goals, we really need partnership and support to fund these. And because of the unique</p>		

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		<p>challenges with stormwater, where it's that utility where we will be forced to pull funds from public safety, library, safety net programs because this is a mandate. This is a utility. This is something that we all know that we have to do. But the regulatory structure is a challenge to fund them and the MRP requirements only make that worse.</p>		

**Response to Comments on September 10, 2021, Tentative Order
Provision A. – Discharge Prohibitions**

Comment No.	Provision	Comment	Response	Proposed Revision
Sunnyvale & Mountain View – 2	A.1	The Cities desire a clearer compliance pathway for A.1. The permit does not define “effectively prohibit” or specify how to comply with this term. A direct connection between A.1 and the Permit’s illicit connection and illicit discharge elimination program should be provided. The Cities have provided suggested wording changes for the provision and Fact Sheet taken from the State’s Phase II Small MS4 General Permit and the Central Valley Region’s Phase I MS4 permit.	CWA section 402(p)(3)(B) states permit for municipal storm water discharges “shall include a requirement to effectively prohibit non-stormwater discharges into storm sewers.” Thus, the “effectively prohibit” language is from the statute and has been required in previous permits. The requested changes to implement Prohibition A.1 through Provision C.5 (Exempted and Conditionally Exempted Discharges) have not been made. C.5 allows certain types of non-stormwater discharges unless they are a source of pollutants to receiving waters. It implements the minimum non-stormwater discharge requirements (i.e., the illicit discharge program) in the federal regulations. U.S. EPA published those regulations on November 16, 1990, to implement the 1987 amendments to the CWA (55 Fed. Reg. 47990 et seq. (Nov. 16, 1990)). In that rulemaking, U.S. EPA explained that the illicit discharge program requirement was intended to begin to implement the Clean Water Act’s provision requiring permits to “effectively prohibit non-stormwater discharges,” indicating that the illicit discharge detection and elimination program requirement did not constitute the full manifestation of this provision (55 Fed.Reg. 47990, 47995; see also 40 CFR § 122.26(d)(2)(i).). C.5 is thus not the exclusive	None.

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Provision A. – Discharge Prohibitions**

			method to effectively prohibit non-storm water discharges.	
Sunnyvale & Mountain View – 8	A.1	Sunnyvale and Mountain View comments 8-24 contain specific, suggested changes to Provisions and Fact Sheet Language. Please refer to the annotated comment letter to see the exact changes requested.	The suggested change has not been made for the reason specified in the response to Sunnyvale & Mountain View – 2.	None.
Sunnyvale & Mountain View – 3	A.2	A.2 should use nouns over non-specific pronouns. Changes suggested in Att. A.	The suggested change is not necessary and has not been made.	None.
Sunnyvale & Mountain View – 9	A.2	Sunnyvale and Mountain View comments 8-24 contain specific, suggested changes to Provisions and Fact Sheet Language. Please refer to the annotated comment letter to see the exact changes requested.	The suggested change is not necessary and has not been made.	None.
Sunnyvale & Mountain View – 23	A.1 Fact Sheet	Sunnyvale and Mountain View comments 8-24 contain specific, suggested changes to Provisions and Fact Sheet Language. Please refer to the annotated comment letter to see the exact changes requested.	The requested change has not been made. See response to Sunnyvale & Mountain View - 2.	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision B. – Receiving Water Limitations**

Comment No.	Provision	Comment	Response	Proposed Revision
Sunnyvale & Mountain View – 4	B.2	<p>The basis for including RWL provisions in MS4 permits is flawed because it rested in large part on U.S. EPA’s interpretation that CWA Section 301(b)(1)(C) applied to discharges from MS4s. In <i>Defenders of Wildlife, et al v. Browner</i>, the Court disagreed with EPA’s interpretation of the relationship between CWA sections 301 and 402(p). The Court reasoned that MS4s are not compelled by section 301(b)(1)(C) to meet all State water quality standards. Guidance exists related to these provisions, however, that should be adjustable if needed to properly address issues that arise. The language should be updated to require that a discharge not “substantially contribute,” or more preferably “concentrations that will impact beneficial uses.” “Generic Prohibitions” that require a permittee to not cause or contribute to water quality exceedances violate the CWA, which requires either Water Quality-Based Effluent Limitations or prescribed Best Management Practices. These Generic Prohibitions skip the step to</p>	<p>The basis of the receiving water limitations (RWLs) is set forth in the Fact Sheet. We disagree that the RWLs need to be revised to include the word “substantially” (or similar language) and violate the Clean Water Act because they are over broad. RWLs are distinguishable from water quality based effluent limitations (WQBELs). Provisions like the RWLs prohibiting discharges from violating water quality standards are frequently included in NPDES permits, and federal courts have recognized the authority of permit issuers to include similar narrative prohibitions against violations of water quality standards. See, e.g., <i>Ohio Valley Env’tl. Coal. v. Fola Coal Co.</i>, 845 F.3d 133, 136, 141-142 & n.5 (4th Cir. 2017); <i>City of Lowell</i>, 18 E.A.D. 115, 176-177 (EAB 2020) (citing <i>Nw. Env’tl. Advocates v. City. Of Portland</i>, 56 F.3d 979, 989-90 (9th Cir. 1995); <i>PUD No. 1 of Jefferson Cty. v. Wash. Dep’t of Ecology</i>, 511 U.S. 700, 716-18 (1994); <i>Nat. Res. Def. Council, Inc. v. Cty. Of Los Angeles</i>, 725 F.3d 1194, 1199, 1201, 1205 (9th Cir. 2013). Moreover, the Water Board is not implementing 40 C.F.R. section 122.44(d)(1)(iii). Rather, the RWLs here are imposed under CWA section 402(p)(3)(B) rather than under section 301(b)(1)(C). The RWLs thus do not stand in for WQBELs under 40 C.F.R. section 122.44(d)(1)(iii). MS4 discharges must meet a technology-</p>	None.

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Provision B. – Receiving Water Limitations**

	<p>determine if a discharge has “Reasonable Potential” and provides inadequate notice of how compliance is to be achieved. The MRP should be viewed as prescribing BMPs in lieu of WQBELs, which are presumed to comply with applicable standards in most cases. A similar general requirement was cause for the Second Circuit Court of Appeals to invalidate part of the 2013 Vessel General Permit. The remainder of the MRP provides detailed requirements that are presumed will be adequate to meet all discharge prohibitions and receiving water limitations. Strict compliance with water quality standards is discretionary in MS4 permits (<i>Defenders of Wildlife v. Browner</i>). The State has chosen to include such provisions. However, the State Board has also provided the ability for regional boards to also include alternative compliance paths that allow permittees time to come into compliance without being held in violation. The Receiving Water Limitations should be tempered with compliance schedules, either explicitly for particular pollutants,</p>	<p>based standard of effectively prohibiting non-storm water discharges and reducing pollutants in the discharge to the maximum extent practicable (MEP), but requiring strict compliance with water quality standards (by imposing WQBELs) is at the discretion of the permitting agency under <i>Defenders of Wildlife v. Browner</i> (9th Cir. 1999) 191 F.3d 1159, as the commenter correctly notes. The Water Board has provided alternative compliance paths and schedules for certain pollutants in the MRP.</p>	
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Provision B. – Receiving Water Limitations**

		or generally with clarifications to C.1.		
Sunnyvale & Mountain View – 10, 24	B.2	Sunnyvale and Mountain View comments 8-24 contain specific, suggested changes to Provisions and Fact Sheet Language. Please refer to the annotated comment letter to see the exact changes requested.	See response to Sunnyvale & Mountain View - 4. The unclear sentence in the Fact Sheet pertaining to the legal authority for receiving water limitation B.2 will be corrected. The other requested changes are not necessary to add to the Fact Sheet as they merely expand upon already cited authority and references. The cited references and authority speak for themselves and do not need to be quoted.	See Fact Sheet clarification referenced in the response.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.1. – Compliance with Discharge Prohibitions and Receiving Water Limitations**

Comment No.	Provision	Comment	Response	Proposed Revision
Sunnyvale & Mountain View – 5	C.1	MS4 permits should incorporate a well-defined, transparent, and finite alternative path to permit compliance for those MS4 dischargers willingly engaged in significant undertakings to be deemed in compliance with receiving water limitations. State Board held that permittees may be deemed in compliance with receiving water limitations if they meet certain conditions during development of a declared WMP/EWMP plan. The C.1. Plans serve a similar initial purpose to confirm the RWL exceedance for the pollutants at issue, determine the sources, and create an implementation plan to achieve RWLs that must be approved by the Regional Board and inserted into the MRP. State Board stated that enforcement protection can be provided during planning phases, so that permittees are not in violation while working to solve the problem. The Water Board should include planning coverage in C.1. to provide limited protection for pollutant(s) at issue from the time the C.1 report and Plan is submitted and during the schedule	The requested change is not appropriate because C.1.a is based on the language in the State Water Board’s precedential Order WQ 1999-05, which language is often referred to as the iterative process of identifying a discharge problem and preventing or reducing the problem through additional BMP implementation. The State Water Board’s Order WQ 2015-0075, as amended by Order WQ 2021-0052-EXEC, provides that good faith engagement in the iterative process does not constitute compliance with receiving water limitations. The State Water Board did hold that enforcement protection can be provided during the planning phase of an ambitious and rigorous alternative path to compliance; however, it did not extend that to the planning phase under the iterative process. For the same reason, the timeframe during which a permit is modified to incorporate changes from the iterative process is not subject to enforcement protection.	None.

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		<p>approved by the Regional Board, this protection should apply until the necessary permit modification is in place. The C.1 Report and Planning process resembles a permittee specific WMP for a specific pollutant. Coverage would be for the pollutant for which the C.1 Plan is approved, not for B.2 generally, which limits the scope. For incorporation into the MRP Permittees must show that they have analyzed the water quality issues in the watershed, prioritized those issues, and proposed appropriate solutions. The Cities have provided proposed edits to C.1 and the Fact Sheet, and request that the Water Board consider the changes proposed to strengthen and clarify the MRP provisions related to Discharge Prohibitions and RWLs.</p>		
<p>Sunnyvale & Mountain View – 11</p>	<p>C.1</p>	<p>Sunnyvale and Mountain View comments 8-25 contain specific, suggested changes to Provisions and Fact Sheet Language. Please refer to the annotated comment letter to see the exact changes requested.</p>	<p>The requested change to C.1.a and C.1.b has not been made. See response to Sunnyvale & Mountain View – 5. Requested editorial changes have not been made to reduce the number of non-essential edits. The request to add “Discharge Prohibition A.1” is not made because the provisions referenced in C.1 are not the exclusive means by which Permittees must comply</p>	<p>None.</p>

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			with the prohibition to effectively discharge non-stormwater.	
Sunnyvale & Mountain View – 25	C.1 Fact Sheet	Sunnyvale and Mountain View comments 8-25 contain specific, suggested changes to Provisions and Fact Sheet Language. Please refer to the annotated comment letter to see the exact changes requested.	<p>The requested editorial additions to the legal authority section of the Fact Sheet for C.1 are unnecessary and have not been made. Water Code section 13263 speaks for itself and the <i>Defenders of Wildlife</i> court decision is referred to elsewhere in the Fact Sheet and need not be repeated here. Reference to 40 CFR section 122.41(d)(1)(i) is retained to support the TMDL requirements. Reasonable potential can be demonstrated in several ways, including through the TMDL development process. Reference to 40 CFR section 122.44(d)(1)(vii) appropriately paraphrases the regulation and the suggested edit has not been made. The reference to Order WQ 2015-00075 has been corrected. The addition to the end of the Fact Sheet paragraph starting “In State Water Board Order WQ 2020-0038, the State Water Board applied and further explained . . .” has not been made. See response to Sunnyvale & Mountain View – 5.</p> <p>The commenter requests changes to the Fact Sheet’s Alternative Path to Compliance with Receiving Water Limitations for Certain Pollutants and Consistency with State Water Board Precedent section. The change referencing</p>	The mistaken reference to Order WQ 2016-0075 has been corrected to 2015-0075. In addition, to reflect the amendment to this order, all references to it in the MRP have been revised to include Order WQ 2021-0052-EXEC, which amended Order WQ 2016-0075.

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			<p>a “C.1 Plan” has not been. See response to commenter’s comment 5. The reference to the water bodies has been corrected. The editorial changes have not been made to reduce the number of non-essential edits. The requested paragraph explaining the change to allow permittees to be “deemed in compliance” while it takes on C.1 reporting and planning efforts has not been made because the change was not made. See response to commenter’s comment 5. The requested new sentences referring to how water quality standards can be reviewed and modified and may evolve to become more nuanced or sophisticated over time has not been made, since they do not purely pertain to compliance with Order WQ 2015-0075, as amended.</p>	
Baykeeper – 1	C.1	<p>The two precedential orders defining acceptable parameters for Safe Harbor provisions in Phase I MS4 Permits apply to MRP 3. Inclusion of Safe Harbor provisions in C.1 requires Draft MRP 3 to comply with the minimum requirements set by State Board. Safe Harbor provisions must be well-defined, transparent, and finite. The State Board has expressly instructed Regional</p>	<p>This comment summarizes State Board WQ Orders 2015-0075, as amended by 2021-0052-EXEC, and 2020-0038 and no response is required. We note, however, that the commenter quotes the minimum scheduling requirements from the Los Angeles Regional Board’s permit, not the State Board’s requirements when it refers to pages 76-77 of WQ Order 2020-0038. The quoted requirements, therefore, do not apply here. The Water Board does not disagree that these orders are precedential; however,</p>	None.

**Response to Comments on September 10, 2021, Tentative Order
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Comment No.	Provision	Comment	Response	Proposed Revision
		<p>Boards to consider the Los Angeles County MS4 Permit's Safe Harbor approach and provided 7 principles to guide their considerations. The seventh principle is most important here: The alternative compliance should have rigor and accountability. Permittees should be required, through a transparent process, to show that they have analyzed the water quality issues in the watershed, prioritized those issues, and proposed appropriate solutions. Permittees should be further required, again through a transparent process, to monitor the results and return to their analysis to verify assumptions and update the solutions. Permittees should be required to conduct this type of adaptive management on their own initiative without waiting for direction from the regional water board. The Regional Board can make a specific showing that application of a given principle is not appropriate for region-specific or permit-specific reasons. In 2020 the State Board reviewed the adequacy of the alternative compliance plans developed in Los</p>	<p>with respect to WQ Order 2020-0038, the State Board acknowledged that the order's sections other than conditional approvals, review of Executive Officer actions, and separation of functions are "likely to be less directly applicable to other regional boards' programs," but its principles for alternative compliance approaches "will have precedential value . . . in some circumstances." (Order WQ 2020-0038, p. 163.) In other words, the order was very specific to the Los Angeles Water Board's MS4 permit and thus not every pronouncement of the order can be applied to other regions. The State Board also stated that it does not intend to restrain the evolution of other regional boards' approaches to alternative compliance. Regional boards may make a specific showing that the application of a given principle is not appropriate for region-specific or permit-specific reasons.</p>	

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		<p>Angeles County. The State Board found the WMPs and EWMPs reviewed to be inadequate, and set out additional requirements to meet the rigor, accountability, and transparency mandated in its prior precedential order. Permittees have to explain how data was used and justify limiting-pollutant approaches if used. The requirements are summarized on page 75 of Order 2020-0038. Further, the State Board required alternative compliance plans to include “regular, clearly presented, enforceable, non-contingent milestones and deadlines”. Per State Board Orders WQ-2015-0075 and WQ 2020-0038, all other Regional Boards must incorporate the lessons learned from the Los Angeles County MS4 Permit into future MS4 permits.</p>		
Baykeeper – 2	C.1	<p>Because Draft MRP 3 includes Safe Harbors, both those carried over from MRP 2, and an additional Safe Harbor for bacteria pollution, it must comply with the requirements of the State Board Orders. The Safe Harbor language effectively eliminates the requirements for permittees to be</p>	See Master Response Identifier C.1 – 1.	See referenced response and revisions to C.14.a.ix and Fact Sheet for the same provision.

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		<p>in compliance with the narrative and numeric receiving water standards for pollutants covered by C.9, C.10, C.11, C.12, C.14, C.18, and C.19.c-f. When discussing the State Board precedential orders, the Fact Sheet at A-98 to A-99 only has a brief summary of the additional principles in State Board Order WQ 2020-0038. Neither the Fact Sheet, nor the Permit itself contains the minimum scheduling requirements for alternative compliance plans, milestones for achieving compliance, a schedule for compliance, and a final compliance deadline, to be achieved as soon as possible. There are no deadlines for compliance with water quality objectives for any pollutant in Draft MRP 3; Draft MRP 3 is unlawful as proposed, significant modification to the C. provisions is necessary. The Fact Sheet at A-104 states that Draft MRP 3 meets the transparency requirement by including explicit requirements in lieu of the WMP/EWMP approach. A “transparent process” also requires a feedback loop to confirm assumptions and allow for</p>		

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		<p>adaptive management. Draft MRP 3 has no methods or means for evaluating compliance and lacks monitoring that would allow such analysis.</p>		
<p>Baykeeper – 9</p>	<p>C.1</p>	<p>Because the Safe Harbor provisions of Draft MRP 3 authorize continued degradation of Bay Area waters, the Regional Board must conduct an anti-degradation analysis in a manner consistent with the following cited codes and policies. This comment cites 40 CFR sections 131.12(a)(1) and 131.12(a)(2)(ii), Water Code section 13372(a), and State Board Resolution No. 68-16 in reference to anti-degradation policy. This comment cites the 1990 Administrative Procedures Update (90-004). This comment cites State Board Order WQ 2015-0075. This comment cites Natural Res. Def. Council, et al. v. State Water Res. Control Bd., et al. Combined, the Federal and State anti-degradation requirements mandate that high water-quality be maintained, unless degradation is justified based on specific findings. And in</p>	<p>See Master Response Identifier General – 1.</p>	<p>See Master Response Identifier General – 1.</p>

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		no case may impaired waters be further degraded.		

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Provision C.2. – Municipal Operations**

Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP-25 SMCWPPP-63	C.2 Fact Sheet	<p>Fact Sheet Finding C.2-1 states: Maintenance personnel also play an important role in educating the public and in reporting and cleaning up illicit discharges.</p> <p>Typically maintenance personnel do not educate the public regarding illicit discharges unless they also happen to perform illicit discharge inspections. An illicit discharge inspector may contact municipal maintenance staff to assist with illicit discharge cleanup, but the inspector is generally responsible for interacting with the general public and not the municipal maintenance staff involved in the clean- up activities.</p>	<p>We concur that maintenance personnel do not necessarily have a role in educating the public, but it is important that they report and clean up illicit discharges that occur during the course of their municipal operation activities. Fact Sheet Finding C.2-1 has been revised to clarify that their role is in identifying and responding to spills or discharges that occur during the course of their regular work activities, and reporting to other agencies or Permittee staff as appropriate.</p>	<p>Fact Sheet Finding C.2-1 has been updated accordingly.</p>
SCVURPPP-26 SMCWPPP-64	C.2.h Fact Sheet (staff training)	<p>While Permittees previously conducted training for municipal maintenance staff this text implies the Provision was in the previous permit. However, this is a new provision with specific training topics and reporting which are new requirements. This wording should be revised to indicate it is a new Provision and provide the basis for</p>	<p>The C.2-h Fact Sheet language has been updated to reflect the training need and more specific training language.</p> <p>We recognize that under previous permits, the Permittees trained municipal staff to ensure they were properly implementing measures to protect water quality in Permittee operations. Water Board staff has participated in those trainings, some of which</p>	<p>Fact Sheet updated accordingly.</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
		<p>including additional requirements and reporting.</p> <p>Revise: This provision continues to require Permittees to conduct annual trainings for municipal staff for specific topics and includes specific reporting requirements. This new Provision was added because....</p>	<p>were specified in the permit (e.g., MRP 2 Provision C.2.c.ii(3) for bridge and structure maintenance and graffiti removal waste disposal, which is also listed in the TO). This subprovision reflects that training is necessary to keep staff current on implementation and updated BMPs to control stormwater discharges from municipal operations, and describes the range of topics for which training is needed and the frequency of training.</p>	
<p>SCVURPPP-17 SCVURPPP-18 SMCWPPP-55 ACCWP-1 City of Oakland-1 CCCWP-6</p>	<p>C.2.a.iii, C.2.b.ii, and C.2.c.iii</p>	<p>These provisions add a requirement to the 2024 Annual Report that Permittees make available to the Water Board applicable supporting BMP documents by providing links to online documents or submitting documents as part of the Annual Report.</p> <p>These provisions require the preparation of new, narrative descriptions for the annual report that do not directly benefit the successful implementation of BMPs to protect stormwater, and add administrative burden on Permittees' staffing and resources that may be better served by implementing other Permit</p>	<p>We have modified the language to reduce the potential administrative burden during the coming permit term and to require that rather than submitting information, it be made available during inspections or upon request by Water Board staff. While the requirements to provide narrative descriptions and copies or links to supporting BMP documents related to municipal operations do not require Permittees to develop or prepare new BMP guidance, but only to identify and provide the documents they are currently implementing, during this Permit term we can assess the appropriateness of BMP documentation during Water Board inspections and audits. Permittees may use CASQA BMP Handbooks, but they may also have individual or modified BMPs specific to their own municipal operations. If, as a result of Water Board inspections or audits, we identify concerns with inappropriate or</p>	<p>Removed additional reporting requirements, and only require BMP documents to be made available during inspections and audits, or otherwise upon request.</p>

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Provision C.2. – Municipal Operations**

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		<p>requirements.</p> <p>Moreover, with respect to C.2.a.iii specifically, the provision already identifies the CASQA Stormwater BMP Handbook and Construction Stormwater BMP Handbook as the relevant BMP documents, thus rendering further reporting on the matter redundant and unnecessary.</p> <p>General concern with overall increase in reporting requirements for all subprovisions. Staff should review the requirements to ensure that required reporting is a high priority and provides information useful for determining compliance with requirements. The narrative description reporting could be moved to the one-time reporting requirement in subprovision <suggested subprovision not listed>.</p>	<p>inadequate BMP guidance and implementation, we will consider updating reporting requirements to address this in a future permit reissuance.</p>	
<p>SCVURPPP-19 SMCWPPP-56</p>	<p>C.2.b.i.</p>	<p>Added requirement: BMPs for washing down outside areas of human habitation shall include sanitizing procedures.”</p>	<p>Comment noted. We disagree that edits are needed.</p>	<p>None.</p>

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		<p>This topic is already included in C.17.a.ii.(3): “Examples of actions that may be implemented include, but are not limited to...establishing and updating sidewalk/ street/plaza cleaning standards for the cleanup and appropriate disposal of human waste.”</p> <p>In addition, sanitizing municipal-owned and -operated areas only needs to be performed in times of elevated risk to public health. This requirement should be removed or include text such as "as needed" or "as appropriate."</p>	<p>Although "establishing and updating sidewalk/street/plaza cleaning standards for the cleanup and appropriate disposal of human waste" is included as one example of an implementation activity under C.17, that is a more general example than the sanitization procedures required in this provision. To ensure that practices appropriately protect water quality, this provision specifically requires including sanitizing BMPs for washing down areas of human habitation, whereas Permittees may choose to develop additional standards more broadly under C.17. Sanitizing BMPs are required to control potential stormwater pollutants from areas of human habitation to protect the environment. This includes discharges such as human waste, potable water, and sanitizing chemicals. BMP implementation would be expected where there are threatened discharges; implementation is not limited to times of elevated risk to public health, which the commenter has not defined. This subprovision notes BMP examples such as BASMAA’s mobile surface cleaner program, which has been in place for more than twenty years, so there is an existing foundation of work.</p>	
ACCWP-2	C.2.e.ii(2)	Revised language seems to imply that the listed activities must be	We disagree. The subprovision states that the requirements apply "in the course of rural road and public works maintenance and	None.

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		completed even if no such work is being performed.	construction activities." The same requirements applied in the previous permit.	
SCVURPPP-20 SMCWPPP-57	C.2.f.ii	Corporation yard wash areas may not have a sanitary sewer drain, but there may be another approved sanitary sewer connection that could be used for discharge of wash waters (e.g., areas where vector trucks deposit contents to drain). The option should be provided to collect and discharge wash water to an approved sanitary sewer connection rather than hauling directly to the wastewater treatment plant.	We agree and have updated C.2.f.ii to reflect the requested flexibility.	Updated language to allow discharge to an approved sanitary sewer connection.
CCCWP-7 SMCWPPP-58	C.2.f.iii	This provision should allow the submittal of existing SWPPPs prepared in accordance with the CASQA Municipal BMP Handbook and SWPPP Template. Allowing the submittal of existing SWPPPs would make an efficient use of Permittee staff resources while continuing to protect stormwater. This is an increase in reporting requirements. Overall, reporting requirements for C.2 have increased, although WB staff and permittees had agreed on a goal to	<p>Comment noted. The provision allows the submittal of existing SWPPPs, as requested, and states: "In the 2023 Annual Report, Permittees shall make their corporation yard SWPPPs available to the Water Board by providing links to online documents or submitting the documents as part of the Annual Report." It does not require Permittees to develop new corporation yard SWPPPs. Permittees may use CASQA resources in the development of their SWPPPs.</p> <p>This is a one-time submittal requirement, reflecting a desire to minimize reporting</p>	None.

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		<p>reduce reporting throughout the permit.</p> <p>There is general concern with the overall increase in reporting requirements.</p>	<p>requirements while ensuring necessary information is submitted to demonstrate that Permittees are appropriately protecting water quality.</p>	
<p>SCVURPPP-21 SMCWPPP-59 ACCWP-3</p>	<p>C.2.g</p>	<p>This provision was moved from MRP 2 Provision C.7.a, Public Information and Participation.</p> <p>This Provision covers both municipally maintained storm drain inlets and newly approved, privately maintained streets. We recommend the requirements related to municipally maintained storm drain inlets remain in C.2 and the private street development requirements be moved to C.3. Note C.3.c.i.(1)(f) already requires storm drain system stenciling or signage.</p> <p>Delete private street requirements from this provision.</p>	<p>We disagree. Storm drain inlet marking is required for newly approved, privately maintained streets regardless of whether they are considered regulated projects under C.3. Keeping this requirement in C.2 avoids potential confusion that the requirement may not apply to projects that are not regulated projects under C.3.</p>	<p>None.</p>
<p>SCVURPPP-22 SMCWPPP-60</p>	<p>C.2.h.ii.</p>	<p>This is a new subprovision that requires training at least once within the permit term on specific topics.</p> <p>The subprovision’s task</p>	<p>Comment noted. While the provision’s “task description” is general, the provision’s “implementation level” specifies the training topics that must be included, “as relevant to municipal staff responsible for maintenance activities.” This allows Permittees the</p>	<p>None.</p>

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Provision C.2. – Municipal Operations**

Comment No.	Provision	Comment	Response	Proposed Revision
		description, “Appropriate BMPs for maintenance and cleanup activities,” is general and duplicative. Maintenance and cleanup activities are general and not related to any specific maintenance activities and facilities identified within this Provision (e.g., street and road repair and maintenance, bridge and structure maintenance). This is duplicative of the stormwater pollution prevention general topic included in the list.	flexibility to focus on appropriate BMPs for the specific maintenance and cleanup activities their staff are responsible for conducting.	
SCVURPPP-23 SMCWPPP-61	C.2.h.ii.	The topic “Spill and discharge response and notification procedures and contacts” is duplicative and inconsistent with other provision requirements. If maintenance staff are responsible for illicit discharge investigation, notification, or contacts, the training would be covered under C.4.e.ii.(5), Illicit Discharge Detection and Elimination. In addition, C.5.c.ii.(3) requires that “[e]ach Permittee shall require the municipal staff conducting routine maintenance and inspection activities to report illicit discharges	Comment noted. We disagree that the requirement to provide training on this topic is duplicative. It is not for inspectors conducting spill and discharge investigations, and applies only to municipal staff who observe or identify spills or discharges during the course of their municipal maintenance activities. As the commenter notes, it is consistent with the expectation set in C.5.c.ii.(3), and is intended to ensure staff know how to respond and report to those spills and discharges.	None.

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		<p>found during their activities to the central contact point so that illicit discharge staff can investigate and track.” Therefore, including this requirement in C.2 is repetitive and inconsistent with other sections of the Permit. Delete this training requirement.</p>		
<p>SMCWPPP-62 SCVURPPP-24</p>	<p>C.2.h.iii</p>	<p>The requirement to report the “[t]otal number of corporation yard staff performing corporation yard inspections for the Permittee” is duplicative of other reporting requirements. It is unclear why this number must be reported separately from “(3) total number of maintenance staff and (4) number and percentage of staff implementing activity who attended training.” If the training topic "corporation yard SWPPPs" is covered, then the number and percentage of maintenance staff implementing corporation yard BMPs will be reported. Staff who perform the annual corporation yard inspections typically do not require any additional training other than being knowledgeable of the SWPPP and annual inspection form. Typically there is one staffer who conducts the annual</p>	<p>We agree that annually reporting the number and percentage of staff implementing municipal maintenance activities who attend training is sufficient to assess the implementation of the staff training program. The implementation reporting and SWPPPs provided by Permittees according to C.2.f.iii will allow further evaluation of the corporation yard inspection program.</p>	<p>Deleted reporting requirements beyond the overall number and percentage of staff attending training.</p>

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		inspection. It is not clear the benefit of reporting this single number in each Annual Report. Delete this requirement.		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.3. – New Development and Redevelopment**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-6	C.3	<p>Water Board staff recognized at the start of the MRP reissuance discussions that transforming an urban landscape developed over many decades to include more sustainable stormwater management infrastructure will similarly require multiple decades. MRP requirements should be drafted accordingly, establishing a strong long-term goal but providing flexibility for permittees on how to get there most cost-effectively, in a manner that contextually fits their jurisdictions, with an emphasis on meaningful planning that will advance implementation. Short-term prescriptive requirements in MRP 3 will effectively derail the long-term vision and approach.</p>	<p>See the responses to the following comments, below:</p> <p>CCTA-4;</p> <p>Oakland-10 SMCWPPP-9 CCCWP-22;</p> <p>SCVURPPP-2a,4;</p> <p>CCCWP-22; and</p> <p>SCVURPPP-2a,4,37 Los Altos-4 San Pablo-5 SMCWPPP-75 CCCWP-21,22 Palo Alto-3.</p> <p>The changes to C.3 are incremental (e.g., the changes to the thresholds for Regulated Projects starting in the second year of the Permit term, and modest expectations for green infrastructure retrofit based in part on the GI Plans), flexible (e.g., changes to C.3.e.i alternative compliance, and recognition of GI Plans as guiding documents that also consider, for example, multi-benefit needs and opportunities), and responsive to past actions (e.g., please the response to Cupertino-1).</p>	<p>See the revisions proposed for the other cited comments.</p>

**Response to Comments on September 10, 2021, Tentative Order
Provision C.3. – New Development and Redevelopment**

Comment No.	Provision	Comment	Response	Proposed Revision
Contech-1	C.3	<p>During the next permit term an estimated 6,000 acres of impervious area will be permitted for new development and redevelopment in the region. It will be a colossal missed opportunity to continue to require the use of sand and compost based bioretention systems when there are much more effective controls for important pollutants in the region like sediment, mercury, PCBs, and nutrients. These innovative controls include non-proprietary media specifications that substitute more stable materials for compost, and proprietary modular bioretention systems that can provide greater and more consistent water quality benefits in a smaller footprint. I hear regularly from engineers and others working on land development projects that they need more flexibility to use innovative bioretention solutions that are readily available in other regions, but prohibited in the SF Bay region unless they are working on a “special project.” We created a petition and gathered over 130 signatures of people working in the</p>	<p>See the response to the following combined comment, below:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>	<p>See the revision proposed for the following combined comment, below:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>

**Response to Comments on September 10, 2021, Tentative Order
Provision C.3. – New Development and Redevelopment**

Comment No.	Provision	Comment	Response	Proposed Revision
		SF Bay region to improve stormwater runoff quality by designing, building, and maintaining stormwater control measures. A copy of the petition language and the names, titles and affiliations of the signatories is included with this comment letter as Att. B. These are many of the people who will be designing and implementing stormwater management solutions during the next permit term.		
ACCWP-4	C.3	<p>As a result of requirements being added over the years, the provision is ambiguous, contains overlapping requirements, and requirements that are challenging to interpret.</p> <p>Streamline the text. Remove redundant requirements. Add a flow chart to the fact sheet.</p>	C.3 addresses the range of potential water quality impacts from new and significant redevelopment projects. That necessarily involves a degree of complexity regarding the range of expected design approaches and water quality controls, and their application to the broad range of land uses in the Permittees' jurisdictions. See below for responses to comments on specific areas of potential confusion, including responsive edits to the Tentative Order. Comment does not explain where text needs to be streamlined, which requirements are redundant, and what kind of and why a flow chart needs to be added to the Fact Sheet.	None.
BIA Bay Area-0	C.3	California is in a housing crisis, and C.3 undermines the State's goal of increasing housing	Comment noted. C.3 has been designed to appropriately address the water quality impacts of new and redevelopment projects while supporting those projects' completion.	None.

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		production and improved affordability.	<p>We disagree that C.3 will undermine increased housing production and affordability. We considered California’s current housing situation in considering revisions to C.3 from the previous permit, the need to appropriately control pollutants in discharges associated with housing, and approaches taken in other municipalities, such as Eugene, Oregon, that are also responding to housing challenges. The proposed Order takes an incremental, evolutionary approach to addressing discharges that impact water quality that is consistent with NPDES MS4 permits elsewhere in the U.S., even though, as described in the Fact Sheet, some other permits have gone beyond the expectations proposed in the order. Thoughtful and timely incorporation of clean water controls into project designs, as practiced in communities like Portland, Oregon, and Seattle, Washington, and in the Bay Area, minimizes incremental costs while improving livability and, in some cases, reducing costs to residents (e.g., by reducing urban heat island effects, or from reductions in parking costs associated with elimination of mandatory minimum parking requirements to reduce project impervious surfaces¹). Significant cost drivers for housing are outside the Permit’s</p>	

¹ https://www.housingfinance.com/policy-legislation/boston-ends-parking-minimums-for-affordable-housing_o

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			scope: for example, zoning requirements for minimum lot sizes or maximum densities, minimum parking requirements, lack of densities sufficient to support public transportation alternatives to automobile ownership, and the lack of land banks or similar non-profit or not-for-profit alternatives to for-profit development.	
CCCWP-8	C.3	Retrofit requirements in C.3.b.ii.(1) & (5), C.3.j.ii.(2), and C.12.c & f, are confusing/ overlapping.	<p>The comment does not identify how or why the referenced requirements are confusing or overlapping. However, as described below, we have modified wording in C.3.b.ii.(1) for clarity – see the response to the following combined comment:</p> <p>SCVWD-3 Solano-14,15 CCCWP-18 PG&E-1 SCVURPPP-27,28 SMCWPPP-65,66 San Mateo County-11 San Jose-14</p> <p>Please also see the response to CCCWP-10, regarding overlap between crediting in C.3.j and C.12.</p>	<p>See the revision proposed for the following combined comment:</p> <p>SCVWD-3 Solano-14,15 CCCWP-18 PG&E-1 SCVURPPP-27,28 SMCWPPP-65,66 San Mateo County-11 San Jose-14</p>

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Save the Bay-2	C.3	Supports the C.3 requirements, as they mitigate the adverse effects associated with climate change. Supports the new Regulated Project category specified in C.3.b.ii.(5), as those road retrofit projects were previously exempted from clean water controls. Notes that over \$750 million in new State funding will soon be available for C.3 LID/GSI projects, through the Transformative Climate Communities Program (Strategic Growth Council), the Urban Greening Grant Program (Natural Resources Agency), and the Integrated Climate and Adaptation Resiliency Program (Office of Planning and Research), among other sources. Urges the Board to adopt the proposed changes to C.3.	Comment noted. We agree that the addition of funding sources will facilitate future implementation of green infrastructure, including on road reconstruction projects.	None.
SMCWPPP-42	C.3	Comment describes the 2017 San Mateo County Stormwater Resources Plan.	Comment noted.	None.
Cupertino-1	C.3	The unintended consequences of the new requirements will negatively impact our ability to execute pavement maintenance and Safe Routes to Schools projects that make our bicycle and pedestrian network safer.	The commenter does not quantify or otherwise describe the expected impact. However, we considered potential effects on road projects overall as part of considering expectations for Permittees to address the water quality impacts of roads. The Fact Sheet describes the work to develop clean	None.

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			<p>water expectations for roads over past permit cycles, including road retrofit pilot projects (MRP 1) and the opportunity for permittees to determine and commit to measures to address road impacts as part of their green infrastructure plans (MRP 2). With the absence of a significant commitment, the Tentative Order includes expectations to implement clean water controls for significant road reconstruction projects, which can also count towards the Order’s modest expectations for green infrastructure retrofit. The potential for these expectations to delay other road projects, while minor, is reasonable when considered against the ongoing and otherwise significantly unaddressed discharge of pollutants from roads.</p> <p>As other responses explain, C.3.b.ii.(5) and C.3.j.ii.(2) also provide substantial flexibility and accommodation.</p>	
CCCWP-12	C.3 & C.12	It may be more efficient for Permittees to comply with the numeric retrofit requirements in C.3.j.ii.(2) at the County level instead of at the individual municipal level. However, that would be difficult because it is difficult for Permittees to exchange monies with other Permittees.	The Permit would allow Permittees to comply with the C.3.j.ii.(2) retrofit requirements via coordinated implementation of larger projects, and some San Mateo County permittees have already indicated an intention to do so. Permittees already pool money at the county level via their countywide stormwater programs; for Contra Costa County Permittees, that is the Contra Costa Clean Water Program, the commenter.	None.

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			<p>In addition, Permittee green infrastructure plans are frameworks for implementation over time and could facilitate exchanges of funding by allowing permittees to recognize the benefit of collaborative action to achieve lower-unit-cost projects that achieve shared goals, such as PCB or mercury load reductions.</p> <p>In 2020 the City of San Pablo initiated a U.S. EPA San Francisco Bay Water Quality Improvement Fund grant-funded effort to investigate a formalized trading program for Contra Costa County, although the Permit allows pooling of funds in the absence of such a program.</p> <p>As early as MRP 1 (and continuing into MRP 2), C.3.e.i has allowed Permittees to implement LID treatment at an offsite location within the same watershed as the Regulated Project. The Tentative Order would provide even greater flexibility by allowing 100 percent of the required LID treatment to be located offsite. And, C.3.e.i(3) gives substantial implementation flexibility by allowing up to 5 years for completion of the offsite LID treatment.</p> <p>The Permittees have had time and flexibility to develop and implement alternative compliance programs that facilitate exchanges between jurisdictions. Where</p>	

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			such programs have not yet been developed, Permittees can still do alternative compliance within their own jurisdictions, for example by using private redevelopment to fund implementation of projects identified in their Green Infrastructure Plans.	
SMCWPPP-43	C.3, C.11 & C.12	Comment discusses the details, purpose and outcome of the San Mateo County Permittees' Reasonable Assurance Analyses.	Comment noted.	None.
SMCWPPP-44	C.3, C.11 & C.12	Comment lists several regional stormwater runoff capture projects that are currently in the planning or construction phase, and agrees with the Fact Sheet regarding the efficiency of larger scale and regional projects in meeting the C.3.j.ii.(2) numeric implementation retrofit requirements.	Comment noted. We recognize the substantial planning work completed by SMCWPPP and the potential value of lower-unit-cost district- or regional-scale projects that can achieve other laudable goals, such as climate change and water supply resilience.	None.
SMCWPPP-46	C.3, C.11 & C.12	Certain SMCWPPP Permittees are implementing voluntary clean water controls; comment provides several examples. C/CAG is investigating a countywide alternative compliance program. Refers to the county's green infrastructure design guidance.	Comment noted. We support the substantial work SMCWPPP and C/CAG have completed, including their design guidance, and are working with C/CAG as it considers a countywide alternative compliance program.	None.

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SMCWPPP-47	C.3, C.11 & C.12	Certain SMCWPPP Permittees are implementing green streets projects and requiring private developers to implement frontage improvements, including green infrastructure, including such measures that may help the SMCWPPP Permittees achieve their C.12 obligations. Stresses the importance of flexibility in the Permit. Refers to the San Mateo Countywide Sustainable Streets Master Plan, Safe Routes to School, and presents some project cost data (~\$300,000/acre treated with GI). Notes that ~30 acres of impervious surface were treated by non-Regulated Projects during the MRP 2 permit term.	Comment noted. The requirements in the Tentative Order incentivize and reward the projects referred to in the comment.	None.
SCVWD-3 Solano-14,15 CCCWP-18 PG&E-1 SCVURPPP-27,28 SMCWPPP-65,66 San Mateo County-11 San Jose-14	C.3.b	In MRP 2, C.3.c.ii.(1) required the Permittees to submit specifications for pervious pavement systems, which included specifications for gravel pavements. Gravel pavements, constructed to these specifications, are pervious surfaces and cannot be regulated under C.3.b.ii., which defines Regulated Projects to be those that create or replace impervious surface.	We agree that pervious pavement systems constructed pursuant to specifications sufficient to ensure compliance with the Permit’s LID standard are not Regulated Projects; rather, they are an example of a practice that would address runoff from a Regulated Project. The proposed language does not discourage the use of gravel for erosion control or energy dissipation; it requires Permittees to install flow and treatment measures if a gravel overlay (that is not part of a pervious	We have revised the definition of pervious pavement systems in the Glossary to more clearly distinguish them from gravel overlays, and added information to the Fact Sheet

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		<p>Gravel is used for erosion control, and discouraging its use may result in even less-desired erosion control measures. Gravel roads generate less pollutant loading than concrete/asphalt roads. The Fact Sheet does not support the claim that gravel is impervious and generates pollution. Confusion with regulation of gravel roads vs pervious pavement systems and the definition of impervious surface in the glossary.</p> <p>C.3.b.ii.(1)(b)(iv)(b)-(c) imply that gravel is pervious because they state that upgrading from gravel to pavement is a new impervious surface. Current language disincentivizes gravel surfacing and may cause development project proponents to instead use impervious conventional concrete or asphalt. Gravel should be considered pervious (one commenter requested that gravel be considered pervious within</p>	<p>pavement system) triggers a Regulated Project threshold in C.3.b, to mitigate the adverse water quality and hydrologic impacts associated with a created and/or replaced impervious surface.</p> <p>A gravel overlay, which will compact over time and eventually behave as an impervious surface with respect to runoff, is distinct from gravel that is included as part of a pervious pavement system. U.S. EPA has defined as impervious surfaces "...areas such as gravel roads...that will be compacted through design or use to reduce their impermeability."² It further has defined impervious surfaces as "[a]ny surface that prevents or significantly impedes the infiltration of water into the underlying soil. This can include but is not limited to: roads, driveways, parking areas and other areas created using non porous material; buildings, rooftops, structures, artificial turf and compacted gravel or soil."³ The Ohio EPA includes gravel roads in its required calculations for impervious surfaces.⁴ Municipalities including Asheville and</p>	<p>regarding gravel overlays.</p> <p>We have also clarified that layering gravel over an existing gravel road, without expanding the area of coverage, is an exempted practice, in C.3.b.ii.(1)(b)(ii).j .</p>

² U.S. EPA, July 2016. Summary of State Post Construction Stormwater Standards, p.13.

³ Ibid., p.19

⁴ Ohio EPA, Oct. 2018. Post-Construction Storm Water Questions and Answers, p.1. "What surfaces should be considered impervious? (...) rooftops, paved or gravel roads...."

and Ohio EPA, Oct. 2019. Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays, p.1, "Paved or gravel roads...must also include post-construction storm water management."

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		<p>certain ranges of compaction, others requested that it be considered pervious in all cases), and C.3.b.ii.(1)(b) should be revised accordingly. Upgrading from dirt to gravel should not be considered a new impervious surface.</p>	<p>Durham, North Carolina, and Avon, Ohio, consider gravel driveways impervious for the purpose of calculating those cities' stormwater utility fees, because compaction results in increased runoff from those surfaces.⁵</p> <p>Guidance on the components and details of a pervious pavement system is readily available; for example, robust guidance is included in the current version of SCVURPPP's "C.3 Stormwater Handbook," in Section 6.10, and its Glossary defines pervious pavement systems as: "...permeable interlocking concrete pavement (PICP), pervious or permeable concrete pavers, pervious grid pavements, pervious concrete, porous asphalt, turf block, grasscrete, and bricks and stones, set on a gravel base with gravel joints. Pervious paving or pavement systems are designed to store and infiltrate rainfall at a rate equal to immediately surrounding unpaved, landscaped areas, or store and infiltrate the rainfall runoff volume described in...C.3.d...." Clearly, pervious pavement systems are distinct from simple gravel overlays over dirt or natural soils. In contrast to gravel</p>	

⁵ <https://www.ashevillenc.gov/departement/public-works/stormwater-services-utility/stormwater-fees/>
<https://www.durhamnc.gov/864/Impervious-Surface>. Durham specifically references compacted gravel.
<https://www.cityofavon.com/DocumentCenter/View/4298/Exhibit-A---Ordinance-No-105-17-Chapter-1056-FINAL?bidId=>. "Impervious surfaces include...compacted gravel surface[s]" (p.2).

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			<p>overlays, SCVURPPP’s handbook explains how pervious pavement systems effectively prevent compaction (though a required component of ongoing maintenance is periodic surface vacuuming to remove accumulated debris and sediment), and act as self-treating areas.</p> <p>Pursuant to C.3.b.ii.(4)(d), gravel trails greater than or equal to 10 feet wide may be excluded if they direct stormwater runoff to adjacent vegetated areas, or other non-erodible permeable areas, preferably away from creeks or towards the outboard side of levees, where those areas are at least half as large as the contributing impervious surface area. As such, we expect the vast majority of gravel trails to be excluded, as long as they satisfy the criteria therein.</p> <p>We have also clarified that layering gravel over an existing gravel road, without expanding the area of coverage, is an exempted practice, in C.3.b.ii.(1)(b)(ii).j.</p>	

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Oakland-7	C.3.b, C.3.j	Include incentives in the permit to encourage municipalities to work with developers to add GSI to the ROW, where feasible, and to provide incentives to developers to do so.	<p>C.3.j.ii.(2)(j) provides the requested incentive by reducing Permittee retrofit requirements when Permittees adopt an ordinance that would achieve the commenter’s stated goal. In addition, developers are incentivized to add GSI to the ROW because of its co-benefits and for the opportunity to obtain alternative compliance funding for the retrofit from other project proponents, including Permittees.</p> <p>Additionally, Permittees are already incentivized to work with developers to add GSI to the public ROW, because doing so would help Permittees achieve their retrofit requirements, even without the credit granted by C.3.j.ii.(2)(j).</p> <p>Lastly, several Permittees have already adopted ordinances which leverage private development and redevelopment, such as the cities of San Mateo and Redwood City. For example, San Mateo’s GI Plan explains that “...some private new and redevelopment projects will be required to construct GI measures along the frontages of their property boundaries in the public right of way to treat runoff from roadways, sidewalks and other impervious surfaces” (Section 6.2.3).</p>	None.

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CCCWP-22	C.3.b, C.3.j, C.11, C.12	<p>Permittees recommend the Water Board dispense with the unwieldy and unnecessary accounting for these redundant provisions, eliminate the numeric requirements for all three, and let the Permittees implement their Green Infrastructure Plans. If the Water Board maintains the proposed accounting, then make the following changes:</p> <p>In keeping with the spirit of our emphasis on Green Infrastructure, clarify that all projects that retrofit existing impervious areas with stormwater treatment can be counted toward goals or allocations throughout the permit (C.3, C.10, and C.11/12) simultaneously. C.3.j.ii.(2)(h) allows crediting of Green Infrastructure retrofits built in connection with Road Reconstruction projects under C.3.b.ii.(5). The Permit should also explicitly allow the reciprocal case, that is, Green Infrastructure projects built pursuant to C.3.j.i, C.3.j.ii, or C.12.c should be creditable, under the Alternative Compliance scheme allowed under</p>	<p>We disagree that accounting for required load reductions for mercury and PCBs, for control of trash discharges, or for implementation of green infrastructure retrofit is unnecessary. In fact, it is needed to demonstrate reasonable progress towards achieving the associated TMDL wasteload allocations, or, for trash, reductions in discharge. The Permit reflects our efforts to make the accounting and associated reporting straightforward; much of the reporting is the same as or similar to that in previous permits. Where runoff treatment measures reduce particular pollutants (i.e., mercury, PCBs, or trash), those reductions may all be counted under the Permit. Similarly, to the extent that those measures meet C.3 requirements, they may also be counted towards those requirements.</p> <p>We agree that C.3.j.ii.(2)(h) allows crediting of C3.b.ii.(5) road reconstruction project stormwater treatment controls towards the required green infrastructure retrofit. Specifically, C.3.b.ii.(5)(d) allows Permittees to "...credit the acreage of impervious surface created or replaced for Road Reconstruction Projects towards the Numeric Implementation retrofit requirements specified in Provision C.3.j.ii.(2)." We do not agree that green infrastructure projects built pursuant to C.3.j or C.12.c should be</p>	None.

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		C.3.e.i, toward any compliance obligation incurred for road maintenance projects now designated Regulated Projects under C.3.b.ii.(5).	creditable as alternative compliance for C.3.b.ii.(5) Road Reconstruction Projects. As described in the Fact Sheet, that would work against the MEP standard-based expectation that significant road reconstruction projects incorporate stormwater controls.	
San Jose-11	C.3.b.i.(1)	The changes to C.3 may impact certain projects that are currently in the planning phase. Delay the implementation of new/changed C.3 requirements by several years into the MRP 3 term.	Please see Master Response Identifier C.3-13.	Delayed implementation of new Regulated Project categories (C.3.b.ii.(5)-(6)), and of changes to thresholds for existing Regulated Project categories (C.3.b.ii.(2)-(4)) by one year.
BIA Bay Area-4	C.3.b.i.(1)	Grandfather under MRP 2 all residential projects that have filed preliminary development	We disagree. As the commenter notes, residential projects that were regulated projects under MRP 2 are not subject to	None.

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		<p>applications defined under SB 330 and SB 8 by the effective date of MRP 3, even if those applications have not been approved and the projects are not entitled. We recognize that regulated projects meeting MRP 2’s stormwater treatment requirements, along with projects that have approved vesting tentative maps, are exempt from the updated permit language.</p>	<p>updated permit language—and, in any case, the requirements on those projects are the same, so there is no effect on those projects.</p> <p>The regulated project definition has been revised to include multi-unit residential projects with more than 5,000 square feet of impervious surface, and Large Detached Single Family Home Projects with more than 10,000 square feet of impervious surface. The latter were already expected to consider implementation of stormwater controls under MRP 2, and maintaining the MRP 2 expectation regarding which projects will be grandfathered would maintain consistent expectations on that issue. The Fact Sheet includes a discussion of why the changed impervious surface threshold is reasonable and required under MEP, and why projects should be able to meet the revised expectation.</p>	
<p>ACCWP-6 Oakland-3</p>	<p>C.3.b.i.(2)</p>	<p>Some public projects, which may be constructed during MRP 3, were approved without stormwater treatment controls required by C.3.d in the current/previous MRP, and would therefore trigger C.3.b.i.(2). The language allows an exemption for projects with previously approved vesting tentative maps, and new language should be added for public</p>	<p>Please see response to San Jose-11 regarding delayed implementation of updated expectations for public and private projects.</p> <p>In addition, in MRP 2, C.3.j.iii, “no missed opportunities,” required Permittees to review CIP project designs and incorporate treatment controls. MRP 1 and MRP 2 already required public projects that were regulated projects to incorporate treatment controls, and MRP 2 included green</p>	<p>See response to San Jose-11.</p>

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		<p>projects, such as allowing an exemption for “the date their governing body or designee approves initiation of the project design,” so that the exemption is more easily triggered.</p>	<p>infrastructure planning expectations that included municipal review of projects to determine opportunities to commit to implementation. Thus, the expectation to incorporate controls, or to consider their incorporation, has been present at “initiation of project design” for all public CIP projects since 2015, and for regulated public projects for more than a decade. Earlier MS4 permits also included treatment control expectations. However, to the extent a public project was approved, but not constructed, more than a decade ago, it is reasonable that the design would be brought up to current expectations as part of a permittee’s review and budgeting process.</p> <p>The commenters did not identify any public projects where this issue may come up. However, the public projects to which this issue could apply appear limited to those that might fall into the 5,000 – 10,000 square foot threshold, or the 1 acre-plus threshold for significant roadway reconstruction projects. The permit allows flexibility through C.3.e, Alternative Compliance, and C.3.j, Green Infrastructure Planning and Implementation, sufficient to allow those projects to proceed while ensuring their urban runoff impacts are appropriately addressed.</p>	

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San Jose-13	C.3.b.ii	<p>1) Smaller development projects may be defined as Regulated Projects if they are required to additionally treat the portion of the public right of way that is created/replaced as part of the private project.</p> <p>2) In such cases, runoff from the private parcel and the public right of way may comingle, which can open up Permittees to liability issues.</p> <p>3) Providing treatment in the public right of way will be difficult and expensive due to space and utility conflicts.</p>	<p>1) To the extent that impervious surface work is part of a project and exceeds specified thresholds, the treatment expectation is the intended outcome.</p> <p>2) We expect Permittees will address these issues as they come up; they are already being considered by some San Mateo Permittees as they implement treatment control expectations that include ROW runoff.</p> <p>3) As noted in the Fact Sheet and in our discussions in the C.3 workgroup, urban and suburban environments have constraints that must be addressed as part of treatment control design. The permit has substantial flexibility regarding treatment location: treatment is not required to be in the public right of way. C.3.e.i, alternative compliance, allows offsite treatment when onsite treatment is not possible. Additionally, green infrastructure and Road Reconstruction projects can use the conditionally-approved alternative sizing criteria.</p>	None.
Hillsborough-5	C.3.b.ii	Exempt Hillsborough from "the proposed C.3 New/Redevelopment and C.3 Road Projects provisions."	We disagree. These projects have the potential for significant impacts to water quality and, as such, must be addressed within the Permit's MEP framework. However, the Permit offers substantial flexibility to achieve clean water outcomes, including via C.3.e, Alternative Compliance,	None.

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			<p>and C.3.j, Green Infrastructure Planning and Implementation, sufficient to allow those projects to proceed while ensuring their urban runoff impacts are appropriately addressed. For example, both C.3.b.ii.(5)(c) and C.3.j.ii.(3)(b) allow Permittees to use the conditionally-approved alternative sizing criteria for green streets projects that are categorized as Road Reconstruction Projects.</p> <p>See also response to San Jose-11, noting a 1-year delayed implementation date for new Regulated Project categories (C.3.b.ii.(5)-(6))and for changes to thresholds of existing Regulated Project categories (C.3.b.ii.(2)-(4)), to give Hillsborough and other Permittees more time to implement the updated expectations.</p>	

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SCVURPPP-27 SMCWPPP-66	C.3.b.ii	Absence of "contiguous" in non-excluded public ROW projects will cause more projects to be regulated. For example, piecemeal projects such as gap closures, sidewalk section replacement, utility trenching, ADA curb ramps, LID, etc. that are not "contiguous" and add up to 5,000 sq. ft. or more in total would become regulated. (Based on discussion with Water Board staff on 10/27/21, "piecemeal" projects were not intended to be regulated and it was agreed that language needs to be clarified.)	<p>Projects that qualify as Road Reconstruction Projects are only included if they satisfy all the criteria therein, including criteria regarding contiguousness. We revised C.3.b.ii.(1)(b)(iv) to clarify this.</p> <p>We agree that these types of piecemeal public ROW projects – including sidewalk gap closures, sidewalk section replacement, and ADA curb ramps – that would otherwise qualify as Other Redevelopment Projects, should be excluded unless they create and/or replace 5,000 contiguous square feet of impervious surface, and have clarified that in the Permit.</p> <p>We have revised C.3.b.ii.(5) to clarify that utility trenching projects belong in the Road Reconstruction Projects category, and therefore are only Regulated Projects if they create and/or replace 1 acre or more of contiguous impervious surface.</p>	<p>We have revised C.3.b.ii.(1)(b)(iv) and C.3.b.ii.(3) as indicated.</p> <p>We have also revised the Fact Sheet to explain these changes.</p> <p>Categorized utility trenching projects in C.3.b.ii.(5).</p>
San Jose-12	C.3.b.ii.(1)(a)	Remove C.3.b.ii.(1)(a) as those Regulated Projects fall under the other Regulated Project categories.	This subprovision is retained to be explicit that the permit regulates these categories of development and redevelopment, consistent with precedential State Water Board WQ Order 2000-0011.	None.

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Sandis-2	C.3.b.ii.(1)(a)-(c) and C.3.j	<p>Changes to C.3.b will result in: "fragmented systems... a fragmented approach to treatment of public right[s] of way" and maintenance responsibility.</p> <p>In some cases it may not be feasible to comply with C.3.d.</p> <p>There may be a need to provide treatment on private property if there is insufficient space in the public right of way, which is undesirable and may increase flooding risk.</p> <p>These concerns will be alleviated if Permittees: "...establish consistent implementation details for BMPs within the public right of way...", and "...establish a consistent framework for maintenance of BMPs constructed within the public right of way...", and "identify opportunities for in-lieu projects within the primary watersheds of the MS4 system. Once an applicant has demonstrated the MEP criteria [are] met allow the implementation of partial funding of an identified in-lieu project by the applicant.</p>	<p>We disagree. The Permit does not require implementation of fragmented systems, but rather allows flexibility, via C.3.e, Alternative Compliance, C.3.j, Green Infrastructure Planning and Implementation, and C.3.b.ii.(5)(c), for Permittees to implement systems at other scales, as long as they provide equivalent benefit.</p> <p>C.3.b.ii.(5)(c) allows public road projects to use the conditionally-approved alternative sizing criteria, recognizing the logistical constraints associated with such projects, thus providing modest flexibility on control design that can reduce control size.</p> <p>The concern raised in the comment is not substantiated; it is not clear why appropriately designed, operated, and maintained treatment on private property as opposed to on public property would inherently increase flooding risks.</p> <p>We support the development and implementation of consistent design and operation and maintenance approaches. MRP 2 encouraged Permittees to develop standard specifications and details for public right-of-way BMPs, and permittees and Board staff worked together during MRP 2 as part of the Sustainable Streets project to, in part, identify such consistent approaches.</p>	None.

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			C.3.f, Alternative Compliance, would maintain opportunities for in-lieu projects that could be implemented via developer contributions, and many Permittee Green Infrastructure plans note such opportunities.	

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SCVURPPP-3b	C.3.b.ii.(1)(b)	Estimates that 164 CIP projects "could" require stormwater treatment (this figure may erroneously include projects which are exempted as Routine Maintenance), over 5 years, at an estimated total cost of \$300 million countywide.	<p>Based on discussion with SCVURPPP staff (and as noted in footnote 2 in the SCVURPPP comment letter), it is our understanding that a significant portion of these 164 CIP projects will be exempted from the Tentative Order's requirements for Regulated Projects. For example, included in this metric of 164 CIP projects are "piecemeal" non-contiguous public works projects which would be exempted, such as sidewalk section replacement, sidewalk gap closures, and ADA curb ramps. Therefore, this comment significantly overstates the cost of implementing the referenced changes to C.3.b during the MRP 3 term.</p> <p>See response to the following combined comment:</p> <p>SCVURPPP-27 SMCWPPP-66.</p>	We revised C.3.b.ii.(1)(b)(iv) , C.3.b.ii.(3), and the Fact Sheet, to clarify which types of projects are excluded.

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<p>SCVURPPP-27,29 SMCWPPP-65,67 San Mateo County-10</p>	<p>C.3.b.ii.(1)(b)</p>	<p>1) Language on regulation of pavement maintenance activities is confusing and should be clarified.</p> <p>2) If pavement maintenance is not excluded, at a minimum change "base course" to "sub-base course" or "subgrade," and clarify that base course does not mean aggregate base. This is because milling and grinding for resurfacing can disturb the base layer.</p> <p>3) Clarify whether "square cut patching" includes trench pavement restoration and dig-outs, and whether upgrade from a chip seal to overlay is excluded if wedge grinding is part of overlay.</p> <p>4) Add exclusion for utility trenching for projects up to 1 acre (per CGP).</p> <p>5) Allow extension of pavement edge for bike lanes, sidewalks, and public safety projects.</p> <p>6) Many pavement maintenance projects require repair of the pavement base to ensure effective, long-lasting repairs. Excluding</p>	<p>1) Comment is not sufficiently specific, so it is unclear what changes may make the language less confusing. Please see the following responses that address more-specific comments on this issue:</p> <p>SCVURPPP-27 SMCWPPP-66;</p> <p>San Mateo County-9;</p> <p>ACCWP-a1i,a1ii,5,7,12 Oakland-2,7 San Mateo County-4,14 Hillsborough-3 Oakland & San Jose-2a SMCWPPP-8 Woodside-8,11 CCCWP-18,20 San Pablo-2 CCTA-1,3 Walnut Creek-6 Santa Clara-3 Dublin-4 Concord-1,2,3,6,7 Cupertino-2 Orinda-1 SCVURPPP-3b,29; and</p> <p>Part 8) of this response, below.</p>	<p>1) Refer to the proposed revisions for the cited responses. Revised C.3.b.ii.(1)(b)(ii). g. as indicated.</p> <p>2) Defined base course in Glossary.</p> <p>3) Added footnote and Glossary definition for wedge grinding.</p> <p>4) Categorized utility trenching projects as Road Reconstruction Projects.</p> <p>5) None.</p> <p>6) None.</p> <p>7) None.</p> <p>8) We have made several</p>

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		<p>projects that repair the pavement base in preparation for surface treatment effectively nullifies a significant number of pavement maintenance projects.</p> <p>7) Remove following text: “...or repairing the pavement base (including repair of the pavement base in preparation for bituminous surface treatment, such as chip seal).”</p> <p>8) Consider moving sub-provisions C.3.b.ii(1)(b) (ii-iv) out of the Special Land Use Categories sub-provision and into a new “Other Projects in the Public Right-of-Way” sub-provision.</p>	<p>We have also revised C.3.b.ii.(1)(b)(ii).g. for clarity.</p> <p>2) We disagree. If milling and grinding disturbs the base course layer, we would consider that to be significant reconstruction rather than routine maintenance. For clarity, we have added a definition of base course (which consists of aggregate base) to the glossary.</p> <p>3) Square cut patching does not include dig-out projects that trigger the thresholds in any of the Regulated Project Categories.</p> <p>Square cut patching includes filling potholes or repairing small and localized areas of raveling. Repair of large and broad areas of raveling (indicative of general hot mix asphalt (HMA) failure), involving the replacement of large sections of pavement, is not exempted if it meets the C.3.b.ii.(5) triggers.</p> <p>Square cut patching does not include (utility) trench pavement restoration; that is not pavement repair, it’s filling in sections of pavement that were deliberately removed as part of a utility project. As noted elsewhere, utility trenching projects have been defined as Road Reconstruction Projects and thus would be included when they create or</p>	<p>clarifying edits throughout C.3.b.ii.</p>

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			<p>replace 1 acre or more of impervious surface.</p> <p>Upgrading from a chip seal to an overlay is excluded per C.3.b.ii.(1)(b)(ii).g, even if it includes wedge grinding, so long as the area of coverage is not expanded. We have added a footnote clarifying this as well as a definition to the Glossary.</p> <p>4) We have made this change. We revised C.3.b.ii to clarify that utility trenching projects are in the Road Reconstruction Projects category, and therefore are Regulated Projects if they create and/or replace 1 acre or more of contiguous impervious surface.</p> <p>See response to Sandis-1, CCWD-1.</p> <p>5) We do not agree that the referenced pavement creation/replacement activities should be excluded, because they are impervious surfaces that can collect, concentrate, and discharge urban runoff pollutants and contribute to hydromodification.</p> <p>See also response to Cupertino-1.</p> <p>6) The Tentative Order distinguishes between routine maintenance and significant road reconstruction projects; the Permit</p>	

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			<p>would determine that projects which excavate the base layer fall into the latter category. And, when they replace 1 acre or more of impervious surface, such projects constitute a significant investment and replacement of impervious surface, and therefore warrant the inclusion of clean water controls.</p> <p>7) A justification has not been provided for the requested change and, therefore, it has not been made.</p> <p>8) Recognizing that there may be potential for confusion, we have made several responsive clarifying edits throughout C.3.b.ii. To the extent language in C.3.b.ii.(1) is referred to in C.3.b.ii.(2)-(6), it is now referred to (and caveated and/or expanded on) appropriately. Because we have made those clarifying edits, we do not agree that it is necessary to make the change suggested in this comment.</p>	

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CCCWP-18	C.3.b.ii.(1)(b) & C.3.b.ii.(5)	<p>1) The specific criteria are not adapted to Bay Area conditions and existing road infrastructure, and the application of these criteria will have unintended consequences.</p> <p>2) Many older residential neighborhoods were constructed with thin asphalt sections which do not allow for conventional “grind and overlay” techniques without exposing the base course.</p>	<p>1) We disagree. The criteria appropriately take into account typical Bay Area road cross sections, construction materials, drainage designs, pollutant contributions, and rainfall patterns. These materials, designs, and pollutant contributions are broadly similar to those in other parts the United States where clean water controls have been implemented, including both MS4s and combined sewer systems, and the designs, operation, and maintenance of controls used by the Permittees, such as bioretention cells, are informed by past implementation and studies in the Bay Area, nationally, and internationally. While road projects can be subject to constraints—for example, associated with limited right of way or underground utilities—those constraints are appropriately considered as part of project design and prioritization.</p> <p>2) Bay Area roads, including those in “older” residential neighborhoods, contribute pollutants and contribute to hydromodification. The intent and effect of this Provision is to, over time, address the impacts associated with these contributions by retrofitting these surfaces with clean water controls when associated projects are completed.</p>	None.

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San Pablo-2 CCCWP-20 Concord-1, 2, 3	C.3.b.ii.(1)(b) & C.3.b.ii.(5)	This proposed language change will disproportionately impact disadvantaged communities (DACs) because DACs are at greater risk of having sidewalk gaps, sidewalks that are not ADA compliant, and few existing bicycle lanes.	Please see the response to the following combined comment, regarding sidewalk gap closures, sidewalk section repair, and contiguousness: SCVURPPP-27 SMCWPPP-66 Exempting DACs from these requirements would result in poorer environmental conditions for DACs. Regarding Road Reconstruction, and general concerns about impacts to DACs, please see the discussion in the Fact Sheet regarding the nexus between water quality and environmental justice, for example, in section IV.E.6.a. ⁶	See the proposed revision for the following combined comment: SCVURPPP-27 SMCWPPP-66

⁶ Schwarz et al., 2015. *Trees grow on money: Urban tree canopy cover and environmental justice*. PLoS ONE 10(4): e0122051. <https://doi.org/10.1371/journal.pone.0122051>

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CCCWP - 0	C.3 & C.12	The outsized impact on disadvantaged communities (DAC) is primarily from the road maintenance requirements in provision C.3 (DACs tend to have older pavement with inadequate structural sections requiring more reconstruction work) and PCBs load reduction requirements in provision C.12 (many of the properties in old industrial areas are located in or near DACs).	See response to San Pablo-2, CCCWP-20, and Concord-2,3.	See proposed revision for San Pablo-2, CCCWP-20, Concord-2,3 above.

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San Mateo County-9	C.3.b.ii.(1)(b)(iii)	Revise C.3.b.ii.(1)(b)(iii) so that it is more clear that it only applies to projects that create/replace contiguous impervious surface.	Comment noted. C.3.b.ii.(1)(b)(iii) addresses the scenario in which a project consists of a combination of exempted pavement maintenance practices (pursuant to C.3.b.ii.(1)(b)(ii), non-exempted pavement maintenance practices (pursuant to C.3.b.ii.(1)(b)(iv), and/or other practices that fall under the Regulated Project categories). We have revised the language for clarity.	We have revised C.3.b.ii.(1)(b)(iii) for clarity, and also exchanged its place with C.3.b.ii.(1)(b)(iv), which is a more logical ordering. We have explained and justified this in the Fact Sheet.
Sandis-1 CCWD-1	C.3.b.ii.(1)(b)(iv)	It may not be practicable to treat stormwater runoff from utility trenching projects, because it's not easy to isolate, route, and treat stormwater runoff from only that surface area. Utility trenching should be exempted.	We disagree that utility trenching that meets the appropriate threshold in C.3.b should be exempted. While we agree that it may be challenging to isolate runoff from certain utility trenching projects because of their tendency to be located with a larger paved right of way, the Permit does not require that project runoff be isolated. Rather, project proponents may use alternative compliance pursuant to C.3.e.i, and, in coordination with permittees, may take advantage of projects identified as part of Permittee Green Infrastructure Plans.	Categorized utility trenching projects as Road Reconstruction Projects to eliminate ambiguity about how they are regulated.

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			As to which utility trenching projects are included, we have clarified that utility trenching projects belong in the Road Reconstruction Projects category, and therefore are only Regulated if they create and/or replace 1 acre or more of contiguous impervious surface.	
Oakland-4	C.3.b.ii.(2)	It is inefficient to include stormwater treatment measures in Other Development Projects between 5k sq. ft. and 10k sq. ft. impervious surface created/replaced.	We disagree. Please see the Fact Sheet discussion for this subprovision, which describes the precedent for and practicability of this requirement. In addition, the Permit provides flexibility if smaller systems are infeasible to implement: Permittees may implement larger systems via C.3.e.i, Alternative Compliance.	None.
Baykeeper-12a	C.3.b.ii.(2)-(3)	Comment supports the new thresholds in C.3.b.ii.(2)-(3), explaining that it is feasible to incorporate green infrastructure/LID in those project types, as it was in MRP 2 for project types in C.3.b.ii.(1)(a), and has been implemented (considered feasible) in San Francisco since 2010 by ordinance. The comment also supports the Large Detached Single-Family Home Projects category in C.3.b.ii.(6).	Comment noted.	None.

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San Mateo County-12	C.3.b.ii.(2)-(3)	<p>Regulation of residential subdivisions as Regulated Projects at 5,000 square feet will include projects that are "now possible under SB 9," and is financially and administratively burdensome. For a two-lot subdivision, the combined impervious surface for both lots may be far less than the 10,000 sq. ft. threshold of impervious surface for single-family homes, yet still be subject to the same requirements.</p> <p>Inclusion of single-family subdivisions now possible under SB 9 is in direct conflict with the spirit of the legislation, which is to provide denser, more affordable housing throughout the State. The lowered threshold for subdivisions adds additional development cost at a time when housing is scarce, places a significant maintenance burden on the future homeowners of these parcels, and results in a significant ongoing inspection burden on the County to inspect the small separate systems that would result from this change.</p>	See Master Response Identifier C.3-12.	Clarified in C.3.b.ii.(6) that the addition of an accessory dwelling unit (ADU) on an existing lot with a single-family home, without a subdivision, falls under the single-family home impervious surface threshold of 10,000 sq. ft.

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		Exempt detached single-family home subdivisions that are just 2 parcels.		

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SCVURPPP-3a,28 SMCWPPP-66 Santa Clara-3 ACCWP-5,8,9,10 San Jose-9 SMCWPPP-7 Orinda-2 Oakland-2 San Mateo County-4 Cupertino-1	C.3.b.ii.(2)-(4)	<p>1) Changes to C.3.b.ii.(2)-(4) impose new costs to Permittees (increased burden to conduct plan/design review, inspections, tracking) without commensurate/significant water quality benefits.</p> <p>2) Permittees do not recoup all administrative costs.</p> <p>3) Maintain exemption for bike lanes and sidewalks along existing roads to support active transportation and ped/bike safety improvements - the narrower wheels of bicycles and wheelchairs are more sensitive to cracks in the pavement, so it is even more important to keep these surfaces in good repair.</p> <p>4) New or Widening Road Projects will no longer eligible to be used as in-lieu projects.</p> <p>5) Oppose the changes, but if the changes are adopted, they should be phased (e.g., by July 1, 2024) in instead of being effective</p>	<p>1) See Master Response Identifier C.3-1</p> <p>2) It is our understanding that Permittees can increase their fees to recoup their costs. See, e.g., Fact Sheet sections IV.E, Economic Considerations, and V.C.b, State Mandates.</p> <p>3) We disagree that the creation or replacement of bike lanes and sidewalks along existing roads should be excluded. These impervious surfaces generate urban stormwater pollutants in the form of aeri-ally-deposited particulates as well as pollutants deposited by bicyclists (e.g., bicycle tire wear particles, and petroleum products) and pedestrians (e.g., PAH loading from adjacent roadways, and trash), they are a source of thermal pollution of runoff (which may contribute to adverse impacts threatening cold water wildlife habitat), and they contribute to hydromodification of receiving waters.⁷</p> <p>4) Comment noted.</p> <p>5) Please see the response to San Jose-11.</p> <p>6) See Master Response Identifier C.3-1.</p>	<p>1) None.</p> <p>2) None.</p> <p>3) None.</p> <p>4) None.</p> <p>5) Please see the proposed revision for San Jose-11.</p> <p>6) None.</p>

⁷ <https://doi.org/10.1016/j.scitotenv.2019.136125>

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		<p>immediately.</p> <p>6) Municipalities will have a hard time finding acceptable in-lieu alternatives for small projects not suitable for green infrastructure, e.g., those on steep slopes and those without the drainage infrastructure to allow GSI retrofits.</p>		

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Oakland-5	C.3.b.ii.(3)	Threshold change from 10,000 sq. ft. to 5,000 sq. ft. conflicts with certain plans that involve dense development.	We disagree. Please see the response to CCCWP-12 regarding alternative compliance for Regulated Projects. Please see the examples provided in the Fact Sheet of other Permits that include analogous requirements, in even denser urban settings.	None.
Baykeeper-12b	C.3.b.ii.(4)	Comment supports the Road Reconstruction Projects category in C.3.b.ii.(5), as they are the most efficient way to construct LID projects in an already developed urban environment since deteriorated road materials frequently have to be broken up and removed prior to repaving. The comment also notes that green streets projects were identified as having the greatest opportunity for LID implementation in the Permittees' Green Infrastructure Plans, as compared to other project types (e.g., parcel-based LID).	Comment noted.	None.

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CCTA-2	C.3.b.ii.(4) and C.3.b.ii.(5)	The most appropriate time to incorporate stormwater treatment measures for public ROW projects is not during roadway maintenance projects when availability of ROW is likely insufficient, but during new CIP projects.	Routine maintenance is exempted from requirements for C.3.b.ii.(5) Road Reconstruction Projects, pursuant to C.3.b.ii.(1)(b)(ii). Permittees can include stormwater treatment measures for Road Reconstruction Projects, whether or not they are CIP projects, by doing what the commenter suggests: ensuring adequate time and a thoughtful process with consideration of costs, schedule, required ROW, and utility relocations. Furthermore, in recognition of constraints including utility conflicts, C.3.b.ii.(5)(c) allows the use of conditionally-approved alternative sizing criteria.	None.
San Mateo County-13	C.3.b.ii.(4)(b)(ii)	Because it is very common for Widening Road Projects, driving significant cost increases, remove the following text from C.3.b.ii.(4)(b)(ii): "However, if the stormwater runoff from the existing traffic lanes and the added traffic lanes cannot be separated, any onsite treatment system shall be designed and sized to treat stormwater runoff from the entire street or road."	The referenced Provision was included in both MRP 1 and MRP 2, and we do not agree that it should be removed. The subprovision has been included to avoid problematic undersizing of clean water controls that could impact function and operation and maintenance. In addition, the permit provides flexibility by allowing permittees to use alternative compliance in such situations.	None.

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<p>SCVWD-3 Solano-15 San Jose-15 ACCWP-9,11 Oakland-6 SCVURPPP-28</p>	<p>C.3.b.ii.(4)(c)-(d)</p>	<p>C.3.b.ii.(4)(c) in MRP 2 only applied to impervious trails greater than 10 feet wide; in the Tentative Order, it now also applies to impervious trails that are equal to 10 feet wide. Remove C.3.b.ii.(4)(c) altogether and require site design for trails (instead of C.3.c-d stormwater treatment) because no evidence is cited to support the implication that stormwater runoff from impervious trails represents a water quality and/or hydromodification problem. Trails are typically used in areas not served by curbs, gutters, or the municipal separate storm sewer system, and do not support levels of traffic or activity that generate significant amounts of polluted runoff or pose other risks to water quality, and provide various benefits (e.g., accessible transportation networks, reduced reliance on vehicular travel, increased awareness and engagement with the natural environment). If C.3.b.ii.(4)(c) is not removed altogether, revert it back to what it was in MRP 2. Or, exclude all off-road bike and/or pedestrian facilities such as Class</p>	<p>We do not agree that the construction of impervious trails should be removed altogether, for the following reasons:</p> <p>Trails paved with impervious materials can be trafficked by motorized vehicles, including, but not limited to, those near levees.</p> <p>Impervious trails can generate significant amounts of pollutant runoff and pose other risks to water quality. Even absent traffic from motorized vehicles, impervious trails still generate significant levels of urban stormwater pollutants in the form of aerially-deposited particulates as well as pollutants deposited by bicyclists (e.g., bicycle tire wear particles, and petroleum products) and pedestrians (e.g., trash and other non-stormwater discharges), they are a source of thermal pollution of runoff (which may contribute to adverse impacts threatening cold water wildlife habitat), and via their impervious surfaces and associated drainage infrastructure, they contribute to hydromodification of receiving waters. We have revised Fact Sheet section C.3.b to clarify this.</p> <p>Pursuant to C.3.b.ii.(4)(d)(iii)-(iv), new impervious trails are categorically excluded if</p>	<p>Revised Fact Sheet section C.3.b to clarify the impacts of discharges from impervious trails, and revised C.3.b.ii.(3) to clarify that it refers to private trails.</p>

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		<p>1 designated and/or signed multi-use paths, of any width.</p> <p>C.3.b.ii.(4)(d)(iii) should be reverted to the language in MRP 2, which did not specify the amount of adjacent permeable area that exempted impervious trails should be routed to. Public trail projects already require "innovative engineering and programming" due to onsite constraints and conflicts, such as grading issues, trees, and existing land use. Requiring additional land to treat trail surfaces is infeasible for many public trail projects that aim to connect corridors and provide multi-modal transportation options.</p> <p>Trails were also added to Other Redevelopment Projects in C.3.b.ii.(3); trail redevelopment projects should be excluded as well.</p>	<p>they either 1) are constructed as pervious pavement systems, or 2) direct stormwater runoff to adjacent vegetated areas, or other non-erodible permeable areas, preferably away from creeks or towards the outboard side of levees, where those areas are at least half as large as the contributing impervious surface area.</p> <p>The Permit defines new and reconstructed private trails (pursuant to C.3.b.ii.(3)) and public trails that are new (pursuant to C.3.b.ii.(4)) as Regulated Projects. Though reconstructed public trails are not necessarily Regulated Projects, expectations for those projects are prescribed in C.3.a.i.(6)-(7).</p> <p>If they meet the respective thresholds in C.3.b.ii.(4), qualifying trail projects constitute a significant investment and replacement of impervious surface, and therefore warrant the inclusion of clean water controls.</p> <p>The commenter states trails are typically located in areas not served by curbs, gutters, or the municipal separate storm sewer system. While many trails may lack a traditional curb and gutter system, trails typically have associated drainage infrastructure and are part of or connected to the Permittees' MS4s. Those systems can be</p>	

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			<p>designed to direct runoff to treatment measures pursuant to Permit requirements. And as noted above, we would expect the majority of impervious trails to satisfy the criteria in C.3.b.ii.(4)(d)(iii) and to drain runoff to an appropriately-sized vegetated area.</p> <p>The commenter states that trails were added to C.3.b.ii.(3) as an “Other Redevelopment Project” category and should be removed. To the extent they were not previously excluded under MRP 2, impervious trails were already included as “...any land-disturbing activity that results in the creation, addition, or replacement of exterior impervious surface on a site on which some past development has occurred” (MRP 2, C.3.b.ii.(3)). As such, the language in the Tentative Order clarifies an existing requirement. However, we have revised C.3.b.ii.(3) to clarify that the addition refers to private trails.</p> <p>C.3.b.ii.(4)(c) would include as a new or widening road projects “construction of impervious trails that are greater than or equal to 10 feet wide or are creek-side (within 50 feet of the top of bank.” As noted above regarding the potential for such trails to generate urban runoff pollutants, given</p>	

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			<p>their use and urban setting, we disagree that certain types of trails should be excluded.</p> <p>However, C.3.b.ii.(4)(d)(iii) allows an exclusion from C.3.b.ii.(4)(a)(c) for impervious trails that route runoff to a sufficiently-sized vegetated or pervious area. While we agree that trails can be constructed at sites where there are constraints affecting the trail’s design, the discharges of pollutants, including hydromodification, need to be addressed, and the subprovision lists acceptable approaches that are likely to be feasible for many trails.</p> <p>C.3.b.ii.(4)(d)(iii)’s specification of the amount of permeable area that runoff from impervious trails should be directed to in order to be exempted from C.3.b.ii.(4) reflects existing practice in most Permittee counties. The specified criteria are consistent with the guidance in Table K-2 in Appendix K of the SCVURPPP C.3 Stormwater Handbook, in Table L-2 of Appendix L of the SMCWPPP C.3 Regulated Projects Guide, and in Table L-2 of Appendix L of the ACCWP C.3 Stormwater Technical Guidance.</p>	

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<p>ACCWP-a1i,a1ii,5,7,12 Oakland-2,7 San Mateo County-4,14 Hillsborough-3 Oakland & San Jose-2a SMCWPPP-8 Woodside-8,11 CCCWP-18,20 San Pablo-2 CCTA-1,3 Walnut Creek-6 Santa Clara-3 Dublin-4 Concord-1,2,3,6,7 Cupertino-2 Orinda-1 SCVURPPP-3b,29</p>	<p>C.3.b.ii.(5)</p>	<p>1) It is technically challenging to fit stormwater treatment into Road Reconstruction Projects, for example, because of limited right of way and utility conflicts. It is cheaper and easier to include stormwater treatment on parcels than in the public right of way because there are less constraints.</p> <p>2) C.3.b.ii.(5) will impede strategic implementation of green infrastructure.</p> <p>3) Road Reconstruction Projects will no longer be eligible as alternative compliance for other Regulated Projects.</p> <p>4) C.3.b.ii.(5) will regulate routine pavement maintenance.</p> <p>5) Allow the Permittees to implement road reconstruction projects at their own self-determined pace via their Green Infrastructure Plans, and C.3.j.iii, No Missed Opportunities. It is unclear why municipalities were required to complete a GI Plan in the last MRP only to mandate GI in the next MRP.</p>	<p>1) See Master Response Identifier C.3-2.</p> <p>2) See Master Response Identifier C.3-4.</p> <p>3) Comment noted. We agree. However, such projects may count towards a permittee’s C.3.j.ii.(2) retrofit requirement.</p> <p>4) See Master Response Identifier C.3-3.</p> <p>5) See Master Response Identifier C.3-5.</p> <p>6) See Master Response Identifier C.3-6.</p> <p>7) We disagree. Routine maintenance practices are excluded pursuant to C.3.b.ii.(1)(b)(ii), and significant road reconstruction projects are only regulated if they satisfy all the criteria in C.3.b.ii.(5), in particular, criteria regarding contiguousness and created/replaced impervious surface.</p> <p>To clarify this, we have made edits intended to make clear that “piecemeal” public right of way projects (e.g., pothole filling) are excluded.</p> <p>Please see the response to Cupertino-1 regarding impacts to road projects.</p> <p>8) We agree that not all funding sources for road projects may include green stormwater</p>	<p>We have made several edits to this Provision to clarify that piecemeal public right of way projects (e.g., pothole filling) are excluded.</p>

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		<p>6) Permittees are already challenged with maintaining their roadways. Adding additional immediate and long-term costs (capital construction, and O&M) will worsen roadway conditions because improvements will be further delayed, and will negatively impact public safety. Permittees will be burdened with additional treatment systems that need to be inspected, maintained, and tracked, which pose additional costs. Proposition 218 severely restricts cities' ability to raise ongoing stormwater funding that would be needed to cover the additional costs. Existing funding sources for these roadway projects, such as grants, do not include the cost of stormwater treatment and maintenance, and can have restrictions including not combining with other roadway grants that focus on safety.</p> <p>7) CCCWP-18: C.3.b.ii.(5) would have the unintended consequence of skewing municipalities' choices as they optimize annual expenditures for pavement</p>	<p>infrastructure as a fundable project element. However, this is not true across the board. For example, SB 1 includes GSI.</p> <p>9) We disagree. Please see the discussion in the Fact Sheet, for example, in Economic Considerations, regarding co-benefits (i.e., section IV.E.6.c.).</p> <p>10) We disagree. Please see responses above. However, as previously mentioned, we have delayed implementation of new Regulated Project categories (C.3.b.ii.(5)-(6)), and of changes to thresholds for existing Regulated Project categories (C.3.b.ii.(2)-(4)), by one year. See the response to San Jose-11.</p>	

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		<p>maintenance and would conflict with good pavement management practices.</p> <p>8) Grants for roadway improvements often do not cover GSI costs and do not cover the long-term O&M of GSI facilities.</p> <p>9) C.3.b.ii.(5) hinders Permittees' ability to address other important concerns such as the ongoing housing crisis, business retention and development, urban sprawl reduction and growth patterns, and the wishes of residents and businesses.</p> <p>10) C.3.b.ii.(5) should be removed.</p>		
Woodside-8	C.3.b.ii.(5)	Over 90% of Town roads already drain to pervious surfaces with no hardscape collection system, so there would be no or very little environmental or water quality benefit to regulating road projects in Woodside because the Town's roads predominantly drain naturally to pervious, forested areas.	Please refer to C.3.j.ii.(2)(i), which allows Permittees with small rural jurisdictions (e.g., whose stormwater conveyance systems are dominated by roadside ditches) to collectively submit a proposal, subject to the Executive Officer's approval, for pilot projects investigating the use of alternative green infrastructure techniques to comply with the C.3.j.ii.(2) Numeric Implementation retrofit requirements.	None.
ACCWP-a1i	C.3.b.ii.(5)	1) The benefit of implementing green stormwater infrastructure in conjunction with the development/	1) Comment noted. C.3.b.ii.(5)(c) provides flexibility for Road Reconstruction Projects by allowing them to use (with cause) the	None.

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		<p>redevelopment of parcels is that it is much less expensive than constructing these in the public right-of-way (i.e., roadways and sidewalks) due to the significant logistical constraints associated with those areas, such as conflicts with utilities and limited right-of-way.</p> <p>2) In Alameda County, about 88% of the land within the urban boundary in Alameda County is within parcels rather than public right-of-way. Thus, the transformation of the urban landscape from “grey” to “green” infrastructure will by necessity take place primarily through the redevelopment of parcels.</p>	<p>conditionally approved alternative sizing criteria for constrained sites.</p> <p>2) Comment noted. While a significant land area is within private ownership, discharges from existing public roads represent a significant source of urban stormwater pollutants, as discussed in Fact Sheet section C.3.b. See also response (item 5) to combined comment:</p> <p>ACCWP-a1i,a1ii,5,7,12 Oakland-2,7 San Mateo County-4,14 Hillsborough-3 Oakland & San Jose-2a SMCWPPP-8 Woodside-8,11 CCCWP-18,20 San Pablo-2 CCTA-1,3 Walnut Creek-6 Santa Clara-3 Dublin-4 Concord-1,2,3,6,7 Cupertino-2 Orinda-1 SCVURPPP-3b,29</p>	
Hillsborough-3 Woodside-8	C.3.b.ii.(5)	Any GI in the public right of way should be done via incentives that include funding such as the many grant programs for green	Comment Noted. See the response to the following combined comment, above:	

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		infrastructure that are already in place and are regularly being awarded to agencies throughout the Bay Area.	ACCWP-a1i,a1ii,5,7,12 Oakland-2,7 San Mateo County-4,14 Hillsborough-3 Oakland & San Jose-2a SMCWPPP-8 Woodside-8,11 CCCWP-18,20 San Pablo-2 CCTA-1,3 Walnut Creek-6 Santa Clara-3 Dublin-4 Concord-1,2,3,6,7 Cupertino-2 Orinda-1 SCVURPPP-3b,29	
CCCWP-18	C.3.b.ii.(5)	<p>1) The proposed change to apply Regulated Project requirements to work in existing rights of way would upend or nullify the municipalities' Green Infrastructure planning and prevent some Green Infrastructure projects, currently in the process of design or negotiation, from going forward.</p> <p>2) The grant-funded Regional Alternative Compliance Program would no longer be viable and would therefore be abandoned.</p>	<p>1) See Master Response Identifier C.3-4.</p> <p>2) This is contrary to our understanding, based on our discussions with San Pablo staff. We have continued to meet with San Pablo staff and project partners to advance the proposed Regional Alternative Compliance Program.</p>	None.

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CCCWP-18	C.3.b.ii.(5)	We assume C.3.b.ii.(1) itself does not apply to public roads projects because that provision only applies to certain special land use categories, including auto uses and restaurants.	<p>This comment misinterprets the language in the Tentative Order.</p> <p>C.3.b.ii.(1) defines Special Land Use Categories, while C.3.b.ii.(5) defines Road Reconstruction Projects. However, C.3.b.ii.(1) additionally defines certain exemptions, which apply to both C.3.b.ii.(1) and to C.3.b.ii.(5).</p> <p>As explained in C.3.b.ii.(5): "the specific exclusions that apply to this category are listed in Provision C.3.b.ii.(1)(b)(ii)-(iv). Pavement maintenance practices that are not excluded (as detailed in C.3.b.ii.(1)(b)(iv)) are considered Road Reconstruction Projects if they meet the other definitions therein."</p>	None.
CCCWP-18	C.3.b.ii.(5)	C.3.b.ii.(5) would make it unaffordable for municipalities to maintain their roads, effectively setting back their pavement management programs to a state worse than before SB 1 was passed in 2017. In fact, the changes would wipe out the financing advances for road maintenance provided by SB 1, a politically hard-fought effort that spanned many years.	<p>We disagree. As specified in C.3.b.ii.(1)(b)(ii), routine maintenance practices are exempted.</p> <p>Please refer to the various other responses on this topic, for example, the response to part 6) of the following combined comment:</p> <p>ACCWP-a1i,a1ii,5,7,12 Oakland-2,7 San Mateo County-4,14 Hillsborough-3 Oakland & San Jose-2a SMCWPPP-8</p>	None.

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			Woodside-8,11 CCCWP-18,20 San Pablo-2 CCTA-1,3 Walnut Creek-6 Santa Clara-3 Dublin-4 Concord-1,2,3,6,7 Cupertino-2 Orinda-1 SCVURPPP-3b,29	

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San Pablo-3	C.3.b.ii.(5)	<p>Comment gives an example of a green street project that can't comply with the C.3.d requirement because of technical constraints, lack of local storm drain infrastructure, and class D soils with low infiltration rates, and says that happens often for green street projects. The comment states that the example project (Sutter Avenue Green Streets Project) may be completed through if it is not exempted from the C.3 requirements.</p>	<p>Both C.3.b.ii.(5)(c) and C.3.j.ii.(3) allow the use of the conditionally-approved alternative sizing criteria for green streets projects, where it is technically infeasible to provide the full C.3.d treatment. If a treatment system cannot infiltrate because of poor infiltration rates in the native soil, that is acceptable.</p> <p>Regarding lack of local storm drain infrastructure, streets can function as a Permittee's storm drain (e.g., via curb and gutter drainage and valley gutters), and the Tentative Order provides flexibility for accomplishing the required treatment. The treatment can be provided at a downstream or alternative location where storm drain infrastructure is present. For the particular project given as an example in this comment, if treatment in compliance with C.3 cannot be provided onsite, it can be provided downstream of the site or elsewhere in the watershed, pursuant to C.3.e.i.</p>	None.

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CCCWP-20 ACCWP-7	C.3.b.ii.(5)	<p>1) No other NPDES MS4 permits in California have analogous requirements for public road projects. Most CA stormwater permits provide a very flexible roadway treatment requirement that is essentially equivalent to a “no missed opportunity” requirement.</p> <p>2) For example, for public roads projects the State Water Resources Control Board’s Phase II permit for small municipalities requires LID, “except that treatment of runoff from the 85th percentile that cannot be infiltrated onsite shall follow U.S. EPA guidance regarding green infrastructure to the extent feasible.” The Los Angeles Region’s recently reissued municipal MS4 Permit specifically exempts streets and roads construction from performance requirements and instead references U.S. EPA guidance to be followed to the maximum extent practicable.</p>	<p>1) See Master Response Identifier C.3-7.</p> <p>2) C.3.b.ii.(5) is similar to the cited requirement in the State Board’s General Permit for Small MS4s; pursuant to C.3.b.ii.(5)(c), Permittees may use the conditionally approved alternative sizing criteria for constrained sites. If site conditions (e.g., D soils) preclude infiltration, it is acceptable to exclude infiltration from the design of the treatment measures – this was allowed in MRP 2 and is retained in the Tentative Order.</p> <p>Likewise, the criteria in the Tentative Order are analogous to the MEP criteria in the Los Angeles Region’s recently reissued regional MS4 permit, and similarly provide substantial flexibility, for new road projects, including what is cited in the preceding paragraph. Regarding significant road reconstruction projects which maintain original line and grade, though it is true that they are exempted in the Los Angeles Region’s regional MS4 Permit, the Fact Sheet includes numerous other examples of NPDES MS4 permits which do not exempt such projects.</p>	None.

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CCTA-4	C.3.b.ii.(4) and (5)	<p>1) Consider additional exemptions for roadway maintenance and rehabilitation projects, particularly for smaller projects and communities, and disadvantaged communities, because they are disproportionately affected by these requirements. Those projects/communities should be exempted "until these costs have been quantified."</p> <p>2) Certain other projects "that advance local, regional, and statewide goals of reducing [vehicle miles traveled]...and provide clean transportation alternatives such as bicycle and pedestrian improvements [should] also be exempted."</p>	<p>1) Exempting DACs from C.3.b.ii.(4) and (5) would result in a greater disparity in environmental condition – and would exacerbate environmental justice concerns – for DACs as compared to those better-off communities that would not be exempted, because it would retain or exacerbate existing disparities in pollution discharges.</p> <p>Public and private parties, including Permittees, Caltrans, and developers, and numerous municipalities in California and other parts of the country, have been implementing clean water controls analogous to those in the Permit for more than twenty years. As such, sufficient cost information is available, and was considered as described in the Fact Sheet (e.g., Economic Analysis section) in developing the revised requirements. There is not a need to delay the requirements to further quantify potential costs.</p> <p>2) We disagree that the creation or replacement of bike lanes and sidewalks along existing roads should be excluded. These impervious surfaces generate urban stormwater pollutants in the form of particulates (e.g., bicycle tire wear particles, petroleum products and PAH loading from adjacent roadways, and trash). They also</p>	None.

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			contribute to hydromodification of receiving waters. ⁷	
CCTA-4	C.3.b.ii.(5)	Providing stormwater treatment for all urban impervious surfaces is a long-term goal. Therefore, additional exemptions should be included in C.3.b.ii.(5) for said types of projects.	See Master Response Identifier C.3-8.	None.
Concord-4	C.3.b.ii.(5)	Requests that C.3.b.ii.(5) be removed from the Tentative Order. Notes Board Members' sympathy for impacts of changes to C.3.b on Concord. In response to Board Chair's request, provides examples of potential CIP Projects that could include green infrastructure/LID, and if they do, would achieve the C.3.j.ii.(2) Numeric Implementation retrofit targets, and also satisfy C.3.b.ii.(5) requirements.	<p>The commenter's submittal of information with this comment demonstrates how Concord can and will comply with C.3.b.ii.(5) and C.3.j.ii.(2).</p> <p>If the projects in this list are implemented, Concord will achieve the C.3.j.ii.(2) Numeric Implementation retrofit requirements. According to the descriptions, most of the projects would also be considered Road Reconstruction Projects under C.3.b.ii.(5), and could satisfy the requirements for those projects as well.</p> <p>See also the response to San Jose-11, regarding how we have delayed implementation of new Regulated Project categories (C.3.b.ii.(5)-(6)), and of changes to thresholds for existing Regulated Project categories (C.3.b.ii.(2)-(4)), by one year.</p>	None.

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Concord-7	C.3.b.ii.(5)	If C.3.b.ii.(5) is removed, the City of Concord is willing and able to greatly exceed GI implementation minimums, if afforded the opportunity to plan efficiently and collaboratively to maximize the use of limited storm water funds to achieve the clean water objectives jointly shared by both Concord and the Water Board.	Comment noted. While we would support an increased rate of GI implementation beyond Regulated Projects, the current Regulated Project categories and retrofit expectation constitute a level of effort that is reasonable, consistent with MEP. While this issue came up during C.3 work group discussions, Permittees did not propose what is implied here, that they would substantially increase their retrofit commitment in lieu of implementing clean water controls on road retrofit projects. As a result, Board staff reviewed other MS4 permits and in consideration of the MEP standard developed the revisions to C.3 Permit language.	None.
San Mateo County-14	C.3.b.ii.(5)	Initial cost estimates from a recent GI feasibility study in the North Fair Oaks area estimates that incorporating GI into regular reconstruction projects more than doubles the total project cost on average.	Comment noted. The commenter did not submit the feasibility study or a summary with the comment, so it is not specifically evaluated here. The Fact Sheet (see Economic Analysis section) recognizes that there are costs associated with implementing GI. One approach to managing those costs is prioritizing projects that are relatively easier to implement or less constrained, and Permittees' GI Plans include prioritized lists of potential projects that, in part, consider that issue in their prioritization criteria. In addition, we believe that as Permittees and contractors gain experience in planning, designing, and implementing GI as part of	None.

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			<p>their road reconstruction projects, costs are likely to fall.</p> <p>See also responses to CCCWP-18 and San Pablo-3.</p>	
San Mateo County-14	C.3.b.ii.(5)	C.3.b.ii.(5) undermines the significant staff time, effort, and funding put towards previous GI planning and prioritization efforts such as the Reasonable Assurance Analysis, C/CAG Sustainable Streets Master Plan, and the San Mateo County Green Infrastructure Plan.	<p>We disagree. These efforts are mutually enforcing, and the Permittees' Green Infrastructure Plans lacked significant commitments to implementation.</p> <p>Please see part 1) of the response to CCCWP-18, above.</p> <p>Please also see part 5) of the response to the following combined comment, above:</p> <p>ACCWP-a1i,a1ii,5,7,12 Oakland-2,7 San Mateo County-4,14 Hillsborough-3 Oakland & San Jose-2a SMCWPPP-8 Woodside-8,11 CCCWP-18,20 San Pablo-2 CCTA-1,3 Walnut Creek-6 Santa Clara-3 Dublin-4 Concord-1,2,3,6,7 Cupertino-2</p>	<p>See the proposed revisions for part 1) of the response to CCCWP-18, and for part 5) of the response to the following combined comment:</p> <p>ACCWP-a1i,a1ii,5,7,12 Oakland-2,7 San Mateo County-4,14 Hillsborough-3 Oakland & San Jose-2a SMCWPPP-8 Woodside-8,11 CCCWP-18,20 San Pablo-2 CCTA-1,3 Walnut Creek-6 Santa Clara-3</p>

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			Orinda-1 SCVURPPP-3b,29	Dublin-4 Concord-1,2,3,6,7 Cupertino-2 Orinda-1 SCVURPPP-3b,29
Concord-1,5	C.3.b.ii.(5) & C.3.j.ii.(2)	<p>Recent bond measure can only be used for road maintenance and repair, but not for stormwater treatment. Concord plans to spend \$140M over 5 years using funds from the bond measure to repave 66 miles of Concord’s 310 miles of road; an estimated additional \$100M would need to be spent on stormwater treatment.</p> <p>Consequently, Concord would only maintain/ rehabilitate 7.76 acres of roads instead of X acres [comment doesn't specify X], the minimum required by C.3.j.ii.(2). Disadvantaged areas of Concord will be most affected.</p>	<p>Comment noted. It is not clear why Concord would only maintain or rehabilitate 7.76 acres of roads over 5 years, and the basis is unclear for the estimate of a needed \$100 million to implement stormwater treatment. In their comments, SCVURPPP cited an estimated \$213,000 per acre treatment cost. Using that estimate, the cost of treating 7.76 acres of road would be about \$1.7 million.</p> <p>The cited project has a significant scope (repaving approximately 20 percent of the City’s roads over 5 years), and a significant cost—\$140 million, or about \$2.1 million per mile. The commenter suggests that clean water controls would be required at a cost that may be more than double SCVURPPP’s estimate. That assumes that all of the project’s 66 miles of pavement would be treated with clean water controls. However, it is likely that much or all of the project would not be subject to requirements to implement clean water controls, because as repaving it would be considered routine maintenance under C.3.b.ii.(1)(b)(ii)-(iv). In addition, to the</p>	None.

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			<p>extent clean water controls may be required for a portion, unit costs for those controls could be reduced by implementing it as larger district- or regional-scale treatment facilities.</p> <p>Thus, the comment may be confusing potential costs associated with routine maintenance with those associated with significant road reconstruction. Please see other responses that have clarified and distinguished these two practices, including the response to the following combined comment, above:</p> <p>SCVURPPP-27,29 SMCWPPP-65,67 San Mateo County-10</p> <p>Regarding potential impacts to DACs, please refer to our response to CCTA-4.</p>	
Woodside-11	C.3.b.ii.(5)-(6)	If C.3.b.ii.(5)-(6) are not removed, then exempt Woodside from them.	Comment noted. Please see the Fact Sheet section for C.3.b regarding the need and justification for these subprovisions, and see also the response to San Jose-11 regarding how we have delayed implementation of new Regulated Project categories (C.3.b.ii.(5)-(6)), and of changes to thresholds for existing Regulated Project categories (C.3.b.ii.(2)-(4)), by one year.	None.

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<p>ACCWP-a1i, a2ii/8/13 CCCWP-23 SCVURPPP-30 SMCWPPP-7,68 Hillsborough-2 Oakland-8 Cupertino-3 San Jose-16 Woodside-7,11</p>	<p>C.3.b.ii.(6)</p>	<p>1) It is not clear how large detached single-family home projects between 5,000 and 10,000 square feet are regulated.</p> <p>2) Including Large Detached Single-Family Home Projects as Regulated Projects if they create and/or replace at least 10,000 square feet of impervious surface, conflicts with state and local governments' concerted efforts to improve housing affordability.</p> <p>3) LID controls required for Large Detached Single-Family Home Projects pursuant to C.3.b.ii.(6) are not "readily inspected," or "inaccessible to municipal inspectors," and enforcement is also difficult.</p> <p>4) No exemptions or accommodations are included to make it easier for Permittees to comply with C.3.b.ii.(6).</p> <p>5) Development review and inspection fees do not cover the additional costs incurred.</p> <p>6) Little to no environmental</p>	<p>1) Such projects are regulated according to C.3.i.</p> <p>2) See Master Response Identifier C.3-10.</p> <p>3) See Master Response Identifier C.3-11.</p> <p>4) The Permit has flexibility to make it easier for Permittees to comply with C.3.b.ii.(6). As an alternative to the implementation of onsite LID for Regulated Projects (including Large Detached Single-Family Homes), C.3.e.i allows Permittees to implement offsite LID.</p> <p>5) Permittees could increase the fees they charge, so that those fees do fully recoup the additional administrative costs incurred. The Fact Sheet explains this: "The ability of the Permittees to levy fees, assessments, or service charges to pay for compliance with the requirements of the Order cannot be disputed. In addition to the general authority above, some of the Permittees have specific authority to levy funds to pay for permit compliance through many means, including inspection fees, stormwater fees, development impact fees, trash fees, parks fees, and business improvement districts..." (Fact Sheet section V.C, State Mandates, subsection 2.b).</p> <p>6) See Master Response Identifier C.3-9.</p>	<p>Delayed implementation of new Regulated Project categories (C.3.b.ii.(5)-(6)), and of changes to thresholds for existing Regulated Project categories (C.3.b.ii.(2)-(4)), by one year. See the proposed revision for San Jose-11.</p>

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		<p>benefit associated with capturing Large Detached Single-Family Home Projects, while annual municipal administration costs are asserted to be significant. Such projects should therefore be allowed to implement onsite design measures such as diverting runoff to onsite vegetated areas in lieu of complying with C.3.c-d.</p>		

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ACCWP-14	C.3.b.iii	Allow Permittees 2 years before they have to implement MRP 3 criteria for C.3.b.i-ii, so they have time to incorporate the new criteria into their planning and approval processes.	Please see the response to San Jose-11.	See the proposed revision for San Jose-11.
CCCWP-19	C.3.b.iii	C.3.b.iii requires that C.3.b.i-ii be implemented immediately, which will result in the cancellation of projects that are already planned, designed, funded, and bid.	See response to San Jose-11.	See the proposed revision for San Jose-11.
ACCWP-15	C.3.b.iv	Change C.3.b.iv so that Permittees do not have to include any of the information in their Annual Reports; revise language so that Permittees make the information available to Water Board staff (and to the public) on request.	We disagree that this change is appropriate. The Permittees have been reporting the information for two permit terms, so they already have a lot of practice with it and have incorporated it into their municipal apparatus. Continuing to require the reporting avoids the need for internal changes to tracking systems. In addition, submitting the information in the Permittees' annual reports facilitates Water Board staff's and the public's review of the Permittees' implementation of C.3.	None.
SCVURPPP-31	C.3.b.v.(2)	Requests that reporting on Regulated Projects be revised so that Permittees still track, but no longer have to report on approved	Water Board staff and the Permittees considered this issue during C.3 work group meetings; unfortunately there was no consensus on how to characterize the cutoff,	Revised C.3.b.iv.(2)(g) and C.3.h.v.(2) to include

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		Regulated Projects; only require that they are reported once they are completed.	<p>at which point Regulated Projects would trigger reporting, as it varied significantly for different Permittees. While Water Board staff was open to the Permittees submitting a proposal, one was not submitted. We would welcome the opportunity to revisit this in a subsequent permit term as Permittees further develop their O&M tracking and asset management efforts.</p> <p>However, we agree that it is important for Permittees to report on completed Regulated Projects, both for the Water Board and public's tracking of those projects, and to facilitate the Water Board's inspection of those projects. We have added responsive edits to C.3.b.iv.(2)(g) and to C.3.h.v.(2).</p>	reporting on completed Regulated Projects.
BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i	C.3.c.i.(2)(c)&(d)	Suggests additions to C.3.c.i.(2)(ii) to allow the use of alternative treatment systems, so long as they've received certain certifications (i.e., from Washington State Department of Ecology TAPE program) and comply with the C.3.d criteria. The current prescriptive design standard limits innovation. Such treatment systems are allowed in other NPDES MS4 Permits in California. If allowed, they would reduce developers' reliance on Special Projects, since they have a	See Master Response Identifier C.3-14.	<p>Added C.3.c.i.(2)(ii)(a), which prompts the formation of a workgroup to discuss alternative treatment systems.</p> <p>Revised Fact Sheet as indicated.</p>

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		<p>smaller footprint than conventional bioretention. They'd also significantly reduce maintenance costs. Their media is always the same, compared to conventional bioretention with a sand/compost mix which can vary and provide significantly less treatment than historical testing would indicate. A petition signed by over 140 engineers, contractors, developers, and municipal staff supports the commenters' request to allow the use of these systems.</p> <p>Other bioretention systems that do not conform to the sizing and soil media specifications contained in this permit section are prohibited, regardless of their comparative effectiveness in reducing the discharge of pollutants and their technical and financial feasibility.</p> <p>Prohibiting the use of innovative bioretention systems that are feasible, accepted by similar stormwater programs as appropriate, and have been proven to be equally or more effective in reducing effluent pollutant loads as compared to conventional</p>		

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		<p>bioretention, violates the requirement in CWA Section 402(p)(3)(B)(iii) “reduce the discharge of pollutants to the maximum extent practicable.” Therefore, the only way that this provision can stand as written is if the conventional bioretention system sizing and media composition described in C.3.c is definitively the most effective bioretention specification available for pollutants of concern in the SF Bay region, which it is not.</p>		
Contech-3	C.3.c.i.(2)(c)(ii)	<p>Comment summarizes a report attached to the comment letter, regarding the comparative performance and feasibility of innovative and conventional bioretention systems. Conventional bioretention systems are not effective in removing nutrients, mercury or dissolved copper. At current development rates the exclusive use of conventional bioretention will result in the release of approximately 5,500 lbs of elemental phosphorus from Regulated Projects during MRP 3. Conventional bioretention systems are likely to attenuate TSS and PCBs, but net export of both has</p>	See Master Response Identifier C.3-15.	<p>Please refer to the proposed revision for the following combined comment, above:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>

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		<p>been observed at some field testing sites in the San Francisco Bay Area. Other media mixes provide better and more consistent removal of TSS, mercury, PCBs, phosphorus, and dissolved copper. These systems require a smaller footprint and are cheaper than conventional bioretention systems.</p> <p>"Conventional bioretention is likely to provide significantly more runoff reduction than innovative biofiltration due to its relatively large footprint. However, to provide similar load reductions for most pollutants, as would be provided by non-infiltrating innovative bioretention systems, between 50 and 70% runoff reduction is required to compensate for poorer concentration reduction. This is not likely on most sites in the San Francisco Bay regional where clay soils predominate. Innovative bioretention systems can also be designed to infiltrate stormwater runoff to further improve their pollutant load reduction."</p>		

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Baykeeper-12c	C.3.c.i.(2)(c)(ii)	Certain studies show that sand/compost media in bioretention provide good treatment of some pollutants such as sediment, zinc, and hydrocarbons, but are likely to export (more than they remove) other pollutants such as mercury and nutrients. Export of mercury is particularly concerning because the mercury TMDL implementation requirements specified in C.11.e rely on the use of these systems. Recommends that the Tentative Order be revised to allow for "innovative bioretention systems" that do not export mercury.	See responses to: Combined comment BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i and Contech-3.	None.
SMCWPPP-70	C.3.d.iv	Comment notes there have been changes to C.3.d.iv as compared to MRP 2, but does not make any requests or recommendations.	Comment noted.	None.
Oldcastle-2	C.3.d.iv.(1)	Comment requests that the proposal in C.3.d.iv be implementable by Permittees upon approval by the Executive Officer, rather than requiring a Permit amendment or incorporation into future Permit. And, that the proposal can be made by non-Permittee third parties.	We are unable to make the requested change. As the proposal submitted pursuant to C.3.d.iv is likely to significantly deviate from the MRP's existing LID expectations, and that significant difference cannot yet be framed because there is yet to be a proposed change, it must receive appropriate public review, and its implementation (or conditional implementation) will require a Permit amendment or incorporation into a subsequent Permit.	Please refer to the proposed revision for the following combined comment, above: BIA Bay Area-1 Contech-2,3 KS&E-1

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			<p>We continue to urge third parties to work with the Permittees and Water Board staff on an acceptable proposal.</p> <p>Please refer to the response to combined comment:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>	<p>Oldcastle-1 ACCWP-a1i,a2i</p>

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ACCWP-16	C.3.d.iv.(2)	Delete the language in C.3.d.iv.(2), and allow Permittees to use Tree Interceptor Credits in the current undefined form (no criteria have been approved by the Board) until the Permit is amended/ revised to allow criteria in such a proposal as discussed in C.3.d.iv.(1).	<p>As explained in the Fact Sheet, Interceptor Tree Credits are not allowed because the Permittees' 2011 Feasibility/Infeasibility Criteria Report did not sufficiently justify them, because they have not yet been sufficiently studied, and ultimately because the Water Board has not previously adopted any Order allowing their use to offset the treatment required by C.3.</p> <p>However, recognizing the benefit that tree-based stormwater treatment systems may provide, C.3.d.iv is optional and allows the Permittees to collectively submit a proposal which evaluates the benefit of runoff reduction associated with trees and treatment control sizing of tree-based stormwater treatment in combination with structural soils and suspended pavement systems (or other methods which provide tree rooting volume), which will be considered for incorporation into a subsequent Permit. This proposal is intended to learn from the findings of the ongoing Health Watersheds, Resilient Baylands project (https://www.sfei.org/projects/healthy-watersheds-resilient-baylands), a San Francisco Estuary Partnership-led U.S. EPA Water Quality Improvement Fund (WQIF) project that is investigating similar criteria, and which has a technical action committee (TAC) that Water Board staff and Permittee</p>	None.

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			<p>representatives are participating in, to support the Permittees' submittal, and to ensure it has regional application. The purpose of this subprovision is to characterize the stormwater treatment and hydrologic benefit that new tree-based treatment systems provide when designed and maintained to a defined standard, not to credit existing trees that provide little water quality and hydrologic benefit because of the capacity and manner of treatment provided.</p> <p>Until the adoption of such criteria by the Board, they are not allowed to be used, for the reasons described above. The language in C.3.d.iv has been included to avoid any misunderstanding, and to facilitate the Board's future consideration of the criteria.</p>	

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<p>Dublin-6 SCVURPPP-32 SMCWPPP-71 San Pablo-6,8 ACCWP-17</p>	<p>C.3.e.i</p>	<p>Remove requirement that C.3.e.i alternative compliance projects implement onsite LID treatment to the MEP standard; allow 100% of treatment to be offsite without justification.</p> <p>And/or, define/redefine MEP in the Permit or in the Fact Sheet. An example is given by ACCWP-17 to illustrate how C.3.e.i criteria may not result in the greatest possible water quality benefit, and why the MEP standard should be revised.</p>	<p>We agree it is reasonable to provide flexibility while still ensuring that appropriate on-site treatment is completed, and that off-site treatment not be unreasonably distant from the area of impact. C.3.e.i requires that runoff treatment should be within a project’s “drainage area,” and that off-site treatment should be within a project’s “watershed,” which provide substantial flexibility while still supporting an appropriate nexus between the project and the off-site alternative compliance location. The additional edits in the Tentative Order were intended to clarify uncertainty in MRP 2 as to whether the portion of runoff treated could be zero, with cause. We have deleted the MEP wording while retaining the expectation for on-site treatment, flexible project drainage area, watershed language, and the note that the portion of runoff treated could be zero. This is consistent with the language in MRP 2.</p> <p>For the example given by ACCWP, the subdivision is the project, not the individual parcels within the larger planned project. A single treatment system (or series of such systems) could provide treatment for the subdivision project as a whole. If it is not to the MEP to provide onsite treatment due to concerns about increased inspection/administrative burden for staff, 100% of treatment may be provided offsite.</p>	<p>Revised as indicated.</p>

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San Pablo-6,7 CCCWP-24 SMCWPPP-71 SCVURPPP-32	C.3.e.i	<p>C.3.e.i.(4) in the Administrative Draft allowed Permittees to propose a more-detailed alternative compliance program, subject to the Executive Officer’s approval, for exchanges of impervious surface treatment credits at the regional, county, and/or municipal level. In the Tentative Order, this has been moved to the Fact Sheet.</p> <p>Concern that implementation of the Contra Costa County System, as described in the System Summary Report, when submitted in late 2022 or early 2023, will be delayed by the need to amend the Permit; and, "in a [worst] case scenario, the program would never be implemented if the permit is not amended to clearly authorize the program."</p> <p>Pilot projects that do not strictly comply with C.3.e.i - because they will allow 100% of treatment to be implemented offsite, even though it may be feasible/practicable to implement some onsite treatment - will occur during 2022/2023 as part of the development of the System.</p>	<p>The referenced submittal is still allowed. This Provision was moved to the Fact Sheet in the Tentative Order because the Contra Costa County System is not yet finalized. Once that system is finalized, it will be necessary to allow public input with a Permit amendment, rather than allowing Executive Officer approval.</p> <p>A Permit amendment will follow all required procedures, and is necessary because the Contra Costa County System deviates significantly from the existing proposed C.3.e.i because it would allow 1) treatment in different watersheds, 2) a credit trading program, and 3) 100% offsite LID treatment even if it is feasible to include some LID treatment onsite. Staff will expedite bringing the Permit amendment before the Board for consideration.</p> <p>It is not necessary to include an exception or exemption for the pilot projects, because C.3.e.i in the Tentative Order has sufficient flexibility to allow the pilot projects.</p> <p>It is not necessary to recognize the likely submittal date because there is no associated Permit requirement, and it is also not appropriate because that date is not set in stone. While the Fact Sheet recommends certain components that should be included</p>	None.

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		<p>Include an exemption for these pilot projects.</p> <p>Edit the Fact Sheet to recognize that the Contra Costa County Permittees will submit the Contra Costa County System Summary Report by 2022/2023 and include more details about the System, as this will assist the Permit amendment by providing additional public notice in advance.</p>	<p>in the System, it cannot additionally include any details about the System because those details are not yet finalized.</p>	

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CCCWP-9	C.3.e.i & C.3.b.ii.(5)	Offsite projects are difficult to build for alternative compliance without triggering the Regulated Project thresholds in C.3.b. C.3.b.ii.(5), Road Reconstruction Projects, should be removed so those projects can qualify as alternative compliance projects for other Regulated Projects.	<p>Treatment measures may be implemented without necessarily reconstructing adjacent/tributary roadway sections.</p> <p>Treatment measures located in the public right of way (whether public roads or elsewhere) can be designed to receive runoff from a much greater tributary drainage area than immediately adjacent areas, thereby providing opportunities for alternative compliance credits.</p> <p>That C.3.b.ii.(5) may preclude the use of some number of Road Reconstruction Projects as Alternative Compliance projects is not sufficient justification for its removal. As the Fact Sheet explains, C.3.b.ii.(5) is intended to address the significant pollutant loading and hydrologic impact to receiving waters from Permittees' existing public roads and to clarify the amount of road reconstruction that is redevelopment justifying an investment of resources to retrofit the road with clean water controls.</p> <p>In MRP 2, green infrastructure planning was included in part to provide municipalities the opportunity to evaluate and account for smaller area regulated projects and road replacement projects as part of their Green Infrastructure Plans, and develop commitments to implementation that would</p>	<p>Please refer to the revisions proposed for San Jose-13 (part 3)) and Sandis-2, and for the following combined comment, above:</p> <p>ACCWP-a1i,a1ii,5,7,12 Oakland-2,7 San Mateo County-4,14 Hillsborough-3 Oakland & San Jose-2a SMCWPPP-8 Woodside-8,11 CCCWP-18,20 San Pablo-2 CCTA-1,3 Walnut Creek-6 Santa Clara-3 Dublin-4 Concord-1,2,3,6,7 Cupertino-2 Orinda-1</p>

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			<p>be more efficient and effective for them than a Permit requirement to include all such projects.</p> <p>Because the Green Infrastructure Plans did not include those commitments, the Tentative Order includes a modest green infrastructure implementation requirement, as well as a new Regulated Project category, Road Reconstruction Projects.</p> <p>Please see the responses to San Jose-13 (part 3)) and Sandis-2, and to the following combined comment, above:</p> <p>ACCWP-a1i,a1ii,5,7,12 Oakland-2,7 San Mateo County-4, 14 Hillsborough-3 Oakland & San Jose-2a SMCWPPP-8 Woodside-8,11 CCCWP-18,20 San Pablo-2 CCTA-1,3 Walnut Creek-6 Santa Clara-3 Dublin-4 Concord-1,2,3,6,7 Cupertino-2 Orinda-1 SCVURPPP-3b,29</p>	<p>SCVURPPP-3b,29.</p>

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SMCWPPP-10,11,12,13,45,71,75 SCVURPPP-32	C.3.e.i, C.3.j	C.3.e.i/C.3.j do not support regional project implementation and innovative credit trading programs as well as it could. C.3.e.i should be modified to allow multi-benefit Regional Projects to be used as alternative compliance for Regulated Projects even if they use non-LID treatment and divert from a stream (and therefore, by definition do not comply with C.3.c-d). Likewise for C.3.j.	<p>The Board established LID treatment requirements in the MRP for all Regulated Projects in recognition of LID as a superior, cost-effective, beneficial, holistic, integrated stormwater management strategy. The documented benefits of LID establish it as a preferable approach to treating and reducing stormwater runoff because it is cost effective, sustainable, and environmentally sound. LID treatment measures are effective because they can remove a broader range of pollutants in a more robust and redundant fashion, and can achieve multiple environmental and economic benefits in addition to reducing downstream water quality impacts, such as enhanced water supplies, cleaner air, reduced urban temperature, increased energy efficiency and other community benefits. Thus, there is a water quality benefit to implementing LID as opposed to other controls, and it is appropriate to require justification for situations when LID is not implemented.</p> <p>That said, the Permit includes a framework for consideration of alternative treatment measures. Please see the response to the following combined comment, above:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1</p>	<p>Please see the proposed revision for the following combined comment, above:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>

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			Oldcastle-1 ACCWP-a1i,a2i	
Oldcastle-3	C.3.e.i.(2)	Onsite treatment with (non-conventional) alternative treatment systems should be prioritized over allowing Permittees to use in-lieu fees as allowed in C.3.e.i.(2), because such fees do not guarantee treatment, are often misappropriated, redirected, or delayed, and may not result in treatment in the same watershed which would allow pollutants of concern to discharge to receiving waters. Comment suggests revision to C.3.e.i.(2) to require any onsite treatment to be with "technologies certified... under the Washington State Department of Ecology's TAPE Program..."	<p>We are aware of no evidence that in-lieu fee programs do not guarantee treatment, are misappropriated, redirected, or delayed.</p> <p>Both C.3.e.i.(1) Option 1 and C.3.e.i.(2) Option 2 require the Offsite Project or Regional Project to be located within the same watershed as the Regulated Project.</p> <p>We do not follow the logic of the change suggested for C.3.e.i.(2). The portion of stormwater runoff to be treated onsite will, by deduction, be treated by bioretention. Any treatment measures for C.3.e.i projects (i.e. Regulated Projects) must comply with C.3.c-d. Therefore, changes would need to be made to C.3.c-d rather than C.3.e.i.</p> <p>See the response to the following combined comment, above:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>	<p>See the proposed revision for the following combined comment, above:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>

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Oldcastle-4	C.3.e.i.(3)	Allow only one year for completion of Offsite/Regional Projects, instead of three years. If three years is allowed, temporary onsite treatment (via alternative treatment measures) should be provided in the interim.	<p>We disagree that this is an appropriate revision, as given their potential complexity and Permittees' relatively recent implementation of offsite and regional projects, it is reasonable for this permit term to allow flexibility in construction timing.</p> <p>That said, we have set up a framework for consideration of alternative treatment measures. Please see the response to the following combined comment, above:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>	<p>Please see the proposed revisions for the following combined comment, above:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>
Oldcastle-5	C.3.e.ii	For the stormwater treatment systems allowed to be used for C.3.e.ii Special Projects, require that they are certified under Washington State Department of Ecology's TAPE Program as "Basic Treatment," or equivalent certification program.	<p>See the response to the following combined comment, above:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>	<p>See the proposed revision to the following combined comment, above:</p> <p>BIA Bay Area-1 Contech-2,3 KS&E-1 Oldcastle-1 ACCWP-a1i,a2i</p>

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<p>BIA Bay Area-2,3 ACCWP-a3,18 CCCWP-25 SMCWPPP-72 SCVURPPP-33 Walnut Creek-1,2,3,4 Oakland-9 EBALDC-1,4,5,6,7,8,10 Oldcastle-5</p>	<p>C.3.e.ii.(5)</p>	<p>1) An analysis submitted by the Permittees in February 2015 showed that as of that time, 3.6% of Regulated Project impervious area was associated with Special Projects, and 1.3% of that same impervious area was treated by non-LID, and based on that analysis, the Water Board retained Provision C.3.e.ii in MRP 2.</p> <p>2) The Permittees proposed that they perform a similar analysis prior to the MRP 3 reissuance, and Water Board staff did not respond to that proposal.</p> <p>3) Transit-oriented development projects align with various other agencies' priorities and provides water quality benefit, and should continue to be included as Category C Special Projects.</p> <p>4) Category C Special Projects criteria are too prescriptive, conflict with state/regional/local criteria (e.g., CA Density Bonus Law), and should be revised so that any amount of affordable housing qualifies a project for 100% non-LID treatment.</p>	<p>1) See Master Response Identifier C.3-16.</p> <p>2) We considered the Permittees' proposal and noted that while a new analysis would be unlikely to provide any new information, the Permittees were free to perform and submit any analysis that they wished.</p> <p>3) See Master Response Identifier C.3-17.</p> <p>4) Master Response Identifier: C.3-18.</p> <p>5) Master Response Identifier: C.3-19.</p> <p>6) This is explained in the Fact Sheet: "The other Category C credits (location, density, and parking criteria) are maintained from the Previous Permit, but reduced so that Affordable Housing Credits are the dominant credit for Category C projects while still recognizing the benefits provided by location, density, and parking criteria, and so that the total possible credit available for Category C Special Projects remains 100 percent."</p> <p>Regarding the implication that non-LID treatment measures are equivalent to LID treatment measures, the Board has established LID treatment requirements in the MRP for all Regulated Projects in recognition of LID as a superior, cost-</p>	<p>Revised the Category C Affordable Housing criteria, as indicated.</p>

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		<p>5) Permittees implemented Category C Special Projects appropriately and in good faith during MRP 2, and in some cases negotiated with developers to include more LID than was absolutely required by the criteria.</p> <p>6) The proposed changes to Category C reduce the LID reduction credit from 50% to 5% for projects within a ¼ mile of transit, and from 25% to 10% for PDAs. What is the justification for this change given that mechanical treatment provides pollutant removal?</p> <p>7) Oakland proposes to reduce the Category C thresholds and eliminate the ½-mile of existing/planned transit hub and the ≤ 10% at-grade surface parking for projects without any affordable housing.</p> <p>8) Allow changes to C.3.e.ii.(5) to take effect in the middle of MRP rather than immediately.</p> <p>9) Several comments propose to</p>	<p>effective, beneficial, holistic, integrated stormwater management strategy. The documented benefits of LID establish it as a preferable approach to treating and reducing stormwater runoff because it is cost effective, sustainable, and environmentally sound. LID treatment measures are effective because they can remove a broader range of pollutants in a more robust and redundant fashion, and can achieve multiple environmental and economic benefits in addition to reducing downstream water quality impacts, such as enhanced water supplies, cleaner air, reduced urban temperature, increased energy efficiency and other community benefits. Thus, there is a water quality benefit to implementing LID as opposed to other controls, and it is appropriate to require justification for situations when LID is not implemented.</p> <p>7) Comment noted. These criteria have been removed from Category C as part of focusing it on affordable housing. Please see also item 1 in this response, above.</p> <p>As explained in the Fact Sheet, the other Category C credits (location, density, and parking criteria) are maintained from the Previous Permit, but reduced so that Affordable Housing Credits are the dominant credit for Category C projects while still</p>	

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		<p>maintain the C.3.e.ii.(5) criteria as they were in MRP 2, but eliminate the 1/2 mile of existing/planned transit hub and ≤ 10% at-grade surface parking.</p>	<p>recognizing the benefits provided by location, density, and parking criteria, and so that the total possible credit available for Category C Special Projects remains 100 percent.</p> <p>8) We disagree that this is appropriate or necessary. As stated above in response to (4), Permittees already review these criteria (i.e., percent affordable housing DUs) as part of their ongoing assessment of proposed projects' compliance with the referenced criteria (e.g., criteria for the California Density Bonus Law), so review of the Category C criteria for prospective affordable housing projects during MRP 3 will not constitute a significantly new or additional task. Therefore, it is reasonable to expect Permittees to be able to implement these new criteria immediately.</p> <p>9) See response to (7) above.</p>	

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ACCWP-a3	C.3.e.ii.(5)	<p>Comment provides a "Project Based Analysis of the Effect of this Proposal," to illustrate how the proposed changes to C.3.e.ii.(5) could negatively impact an example affordable housing project.</p>	<p>The "Project Based Analysis of the Effect of this Proposal" gives a misleading interpretation of the Category C criteria in the Tentative Order.</p> <p>In the example given, the project has a sufficient number of Moderate, Low, and Very Low DUs to qualify for a 25 percent credit; only an additional 5 percent of the DUs would need to be made affordable for Extremely Low income households. In fact, the project also has a sufficient number of Moderate, Low and Very Low DUs to qualify for a 50 percent credit; only an additional 15 percent of the DUs would need to be made affordable for Extremely Low income households.</p> <p>The example demonstrates that the proposed C.3.e.ii.(5) criteria likely will have limited impact on affordable housing production because as explained above, only a single DU (5 percent of 20 DUs = 1 DU), would need to be made available for Extremely Low income households for the project to qualify for a 25 percent non-LID reduction credit, and only 3 DUs (15 percent of 20 DUs = 3 DUs), would need to be made available for Extremely Low income households for the project to qualify for a 25 percent non-LID reduction credit. As the project has an excess of Moderate, Low, and</p>	None.

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			<p>Very Low DUs with respect to what is required for <u>both</u> the 25 and 50 percent non-LID reduction credits, such a change in project scope is doable and reasonable (considering the significant financial boon provided by the non-LID reduction credits).</p> <p>As described in the Fact Sheet, there is a nexus between the Category C criteria that this project could easily qualify for (if the aforementioned changes were made) and anticipated water quality outcomes to offset the implementation of non-LID instead of LID. Please see the response to the following combined comment, above, which discusses that in greater detail: .</p> <p>BIA Bay Area-2,3 ACCWP-a3,18 CCCWP-25 SMCWPPP-72 SCVURPPP-33 Walnut Creek-1,2,3,4 Oakland-9 EBALDC-1,4,5,6,7,8,10 Oldcastle-5</p> <p>In the example given, it appears that there is required parking (albeit within the structure); please note other opportunities for cost reduction, such as unbundling parking from rents, removing the parking requirement,</p>	

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			<p>and/or pursuing shared parking requirements at another site rather than requiring them to be implemented on-site.¹</p> <p>The Permit also includes flexibility to complete LID treatment offsite as an alternative compliance project pursuant to C.3.e.i.</p>	
ACCWP-18 Oakland-9	C.3.e.ii.(5)	<p>Incorporate the ABAG Regional Housing Needs Allocation (RHNA 2013) plan and revise the provision to incentivize affordable housing subsidized by private development.</p> <p>Partnerships with private developers are crucial since public funding sources are insufficient to meet affordable housing needs and goals.</p>	<p>The Permit includes substantial flexibility (e.g., alternative compliance and Special Projects Category C) to support the production of housing while also ensuring such production, where it constitutes a significant development or redevelopment project, appropriately addresses its potential water quality impacts consistent with federal standards. The comment does not explain how the RHNA 2013⁸ should be incorporated into the MRP, such as by suggesting specific modifications to the Category C criteria. It generally requests that this be done, because generally, it would “incentivize affordable housing subsidized by private</p>	<p>Please refer to the proposed revision for the following combined comment, above:</p> <p>BIA Bay Area-2,3 ACCWP-a3,18 CCCWP-25 SMCWPPP-72 SCVURPPP-33 Walnut Creek-</p>

⁸ Abag.ca.gov/sites/default/files/2015-23_rhna_plan.pdf

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			<p>development.” But it does not suggest specific changes. The Permit addresses the potential water quality impacts of significant new and redevelopment projects, including housing. The Permittees, through their local land use authority, may be better situated to address specific aspects of the RHNA, for example by modifying their zoning or associated code requirements (e.g., for parking, street widths, lot setbacks, in-lieu fees) to allow construction of additional units.</p> <p>The comment also refers to the draft RHNA 2021 plan, saying it “requires the City to build slightly more low and moderate units, when considered together, than very low-income units.” The Category C criteria address this: when considered together, at each credit (70%, 50%, and 25%), the sum of the percentage of DUs in the Moderate and Low categories is greater than the percentage of DUs in the Very Low category. That is consistent with the emphasis noted by the commenter.</p> <p>By providing flexibility with respect to clean water control design, the Category C criteria support implementation of affordable housing projects.</p> <p>Broadly speaking, RHNA 2013 identifies housing needs, and presses municipalities to</p>	<p>1,2,3,4 Oakland-9 EBALDC- 1,4,5,6,7,8,10 Oldcastle-5</p>

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			<p>meet those housing needs. Special Projects Category C helps support expectations set forth in the RHNA.</p> <p>Please refer to the response to the following combined comment, regarding how the Category C criteria do not preclude achievement of the California Density Bonus Law;</p> <p>BIA Bay Area-2,3 ACCWP-a3,18 CCCWP-25 SMCWPPP-72 SCVURPPP-33 Walnut Creek-1,2,3,4 Oakland-9 EBALDC-1,4,5,6,7,8,10 Oldcastle-5</p>	
EBALDC-2	C.3.e.ii.(5)	Category C Special Project criteria are too restrictive; expand the allowable income levels to include Low and Moderate income levels.	Low and Moderate household income levels are already included in the Tentative Order. Please see C.3.e.ii.(5).	None.
EBALDC-3 ACCWP-18	C.3.e.ii.(5)	Expand the provision’s interpretation of Affordable Housing to include “lower” and “moderate” income households and to be inclusive of seniors, transitional foster youth, disabled veterans, and homeless people.	These groups are not explicitly or implicitly excluded from the criteria; the current criteria are supportive of housing for these groups because they are likely to fall under the provision’s income-based criteria. Low income and Moderate income households are explicitly included in the criteria. Please see C.3.e.ii.(5)(c).	None.

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EBALDC-9	C.3.e.ii.(5)	The density requirements have increased, but the [associated] credit [has been] reduced. This is contrary to the purpose of Special Projects. An increase in density should result in increased incentive, not the other way around. This disincentivizes infill development.	<p>The density needed for a Category C project to qualify for density credits is 40 DU/ac, a density that supports dense infill development.</p> <p>Under C.3.e.ii.(5)(e), Density Credits, as the comment recommends, increased density qualifies for increased credit.</p>	None.

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EBALDC-10	C.3.e.ii.(5)	Private developers increase the cost of market rate units to offset the cost of including affordable units in projects. Allowing 100% LID reduction credits to private projects subject to the CA Density Bonus Law will support affordable housing by reducing the complexity and cost of building each affordable unit and will help keep housing costs lower.	<p>By definition, affordable housing projects that are compliant with C.3.e.ii.(5) Category C Special Projects will have housing prices that are affordable. It does not follow logically why revising the Category C Special Projects criteria so they are cheaper for private developers to comply with will support affordable housing more than the Category C criteria will. Besides, private developers are not the only providers of affordable housing; municipalities and NGOs may implement affordable housing projects, and because for those projects there will be little/no profit motive, there will be less/no profit lost when complying with the Category C criteria.</p> <p>However, we have made changes to the Tentative Order to make the C.3.e.ii.(5) Category C Special Projects criteria more in line with state/regional affordable housing criteria – see the response to the following combined comment, above:</p> <p>BIA Bay Area-2,3 ACCWP-a3,18 CCCWP-25 SMCWPPP-72 SCVURPPP-33 Walnut Creek-1,2,3,4 Oakland-9 EBALDC-1,4,5,6,7,8,10 Oldcastle-5</p>	<p>See proposed revision for the following combined comment, above:</p> <p>BIA Bay Area-2,3 ACCWP-a3,18 CCCWP-25 SMCWPPP-72 SCVURPPP-33 Walnut Creek-1,2,3,4 Oakland-9 EBALDC-1,4,5,6,7,8,10 Oldcastle-5</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
EBALDC-11	C.3.e.ii.(5)	The state and region are experiencing a homelessness crisis. There is a water quality nexus between "access" to affordable housing and water quality.	The Fact Sheet explains the nexus between the provision of truly affordable housing (not just housing that is affordable to households with incomes up to 120% of AMI) and water quality.	None.
EBALDC-12	C.3.e.ii.(5)	Oakland has not met ABAG's mandates to provide affordable housing. Affordable housing is expensive to construct/subsidize. Oakland is pursuing increasing the provision of affordable housing.	Comment noted. The Tentative Order is intended to facilitate the construction of affordable housing that addresses its water quality impacts consistent with federal standards.	None.

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EBALDC-13,14,15,16 ACCWP-a3	C.3.e.ii.(5)	<p>1. More than 60% of Oakland's 25 Category C Special Projects over two years [two-year period not identified] included some amount of affordable housing. Extent and type of affordable housing units not identified. All but three of those would have been ineligible under the criteria in the Tentative Order, and those three would only receive up to 20% LID reduction credit according to C.3.e.ii. The other 22 projects would not have qualified, and consequently there was the potential for those affordable projects not to have been constructed.</p> <p>2. Category C Special Project criteria are too complicated and costly to comply with.</p>	<p>1) See Master Response Identifier C.3-20.</p> <p>2) We reviewed the criteria and modified them to be more consistent with other laws and guidance. Please see the response to the following combined comment:</p> <p>BIA Bay Area-2,3 ACCWP-a3,18 CCCWP-25 SMCWPPP-72 SCVURPPP-33 Walnut Creek-1,2,3,4 Oakland-9 EBALDC-1,4,5,6,7,8,10 Oldcastle-5</p>	<p>Refer to the proposed revision for the following combined comment, above:</p> <p>BIA Bay Area-2,3 ACCWP-a3,18 CCCWP-25 SMCWPPP-72 SCVURPPP-33 Walnut Creek-1,2,3,4 Oakland-9 EBALDC-1,4,5,6,7,8,10 Oldcastle-5</p>

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SCVURPPP-33	C.3.e.ii.(5)	Projects that qualify under Category C in MRP 2 should be exempted from needing to re-qualify under those criteria in MRP 3.	Pursuant to C.3.b.i.(1), any Regulated Project that has been approved with stormwater treatment measures in compliance with C.3.d (and C.3.e) under a previous MS4 permit is exempt from the requirements of C.3.c.	None.
BIA Bay Area-2	C.3.e.ii.(5)	Water Board staff have said that developers who relied on Category C in the current Permit will be able to use C.3.e.i instead, which will allow for up to 100 percent offsite treatment or payment of an in-lieu fee, but no regional offsite treatment or related in-lieu fee programs exist today and will not likely be in place for several years. CCCWP, in partnership with several cities, has received a U.S. EPA WQIF grant and is preparing to start the initial phase of a five-year pilot regional alternative compliance project in early 2022. San Mateo County and its cities are working on a regional multi-benefit stormwater capture project, but the plan is in the concept and site selection stage, according to the C/CAG of San Mateo County Stormwater Committee agenda of Oct. 21, 2021. The remaining jurisdictions in Santa Clara, Alameda, and Solano counties	<p>The Permit provides substantial flexibility to meet runoff treatment requirements both on-site and through the implementation of off-site alternative compliance projects. These alternative compliance options have been in place since MRP 1, yet Permittees have (with few exceptions) chosen to not take advantage of them for Category C projects, principally relying on Category C easement instead. Off-site treatment and the payment of in-lieu fee programs can and should be developed.</p> <p>As the comment notes, countywide alternative compliance programs are under development in San Mateo and Contra Costa counties. However, Permittees and developers do not need to wait for a regional alternative compliance exchange system to be set up before they can make use of the alternative compliance Provision. Importantly, individual Permittees can still implement alternative compliance in their jurisdictions/watersheds, as allowed/encouraged by C.3.e.i. The potential offsite LID projects listed in each Permittee’s</p>	None.

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		<p>have no regional alternative compliance options as provided in the proposed Tentative Order.</p> <p>Additionally, while we understand that each jurisdiction has a green infrastructure plan, the process by which a developer could participate in each plan in fulfillment of an offsite treatment compliance option has yet to be established in most communities.</p> <p>We ask the Water Board to retain Special Projects Category C for TOD as it exists under the current permit until viable alternative regional offsite stormwater treatment and related in-lieu fee programs have been formally adopted and established broadly throughout the permit coverage area.</p>	<p>GI Plan present an excellent opportunity for Permittees to receive alternative compliance dollars from developers to fund offsite CIP and other public right of way projects. In addition, developers may coordinate to independently implement alternative compliance projects, or may coordinate with Permittees to implement such projects, and request that Permittees take notice of them under C.3.e.i.</p> <p>See also Fact Sheet section C.3.b regarding the flexibility of LID design and feasibility of incorporating it into even smaller or denser projects, particularly when the design approach is considered early in the project design process. Regarding the use of Category C during MRP 2, please see the response to the following combined comment:</p> <p>BIA Bay Area-2,3 ACCWP-a3,18 CCCWP-25 SMCWPPP-72 SCVURPPP-33 Walnut Creek-1,2,3,4 Oakland-9 EBALDC-1,4,5,6,7,8,10 Oldcastle-5</p>	

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Walnut Creek-1	C.3.e.ii.(5)	<p>Under MRP 2, the NOMA project qualified for a 100% credit but under Category B instead of C, and the 699 YVR project, a 100% affordable housing project, qualified as a Category C project. However, Walnut Creek did not require a feasibility memo because our engineers talked them through the potential downsides of non-LID. The use of non-LID/vaults may save space, but does not save on costs. It actually costs more for maintenance due to the need to hire specialty contractors to maintain and inspect annually (~\$2,000-5,000/yr.). Since those projects had the available space, they chose to implement LID on site. There are other examples of projects that qualified for, but did not use non-LID. Therefore, Walnut Creek suggests that Category C Affordable Housing projects should be given credits to waive or reduce required treatment areas altogether to reduce costs in design, construction and on-going maintenance, rather than getting credits to use non-LID (vaults, instead of bioretention basins).</p>	<p>Comment noted. The Special Projects section under MRP 2, as it would under MRP 3, requires a feasibility analysis to determine whether a project may utilize the Special Projects easement. The commenter correctly notes that because LID was feasible for the referenced projects, they were required to incorporate LID pursuant to the relevant sections of C.3. In these cases, the required LID design also saved costs as compared to vault-based systems. The comment suggests that the Permit should grant reductions in area from which runoff is required to be treated by LID, in lieu of allowing the use of non-LID systems.</p> <p>Fact Sheet section C.3 recognizes the diffuse nature of urban runoff pollution and Provision C.3 sets forth expectations regarding appropriate levels of treatment—for example, the LID approach and the treatment of an optimized volume that avoids treating the few largest storms every year, which would require substantial increase in treatment control size, but with diminishing benefits. That analysis incorporates a consideration of the maximum extent practicable standard, including a consideration of economic factors. The comment’s proposal, by simply not treating areas of impervious surface, would result in the uncontrolled discharge of pollutants from</p>	None.

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			<p>those areas, and would be based on a differing economic analysis—a differing consideration of project-specific feasibility. The Permit recognizes that there are variations in factors related to a project, such as site constraints, and incorporates both the flexible LID design approach and an alternative compliance subprovision to allow for these variations to be addressed. The option proposed would be weaker than current Permit requirements and there is sufficient flexibility now to accommodate the identified issues.</p>	
Walnut Creek-4	C.3.e.ii.(5)	<p>Adjust the affordable housing income limits based on household size. An example is given from the City of Walnut Creek's municipal code.</p>	<p>We agree that this is an appropriate edit. We have revised C.3.e.ii.(5) so that it directly refers to the California Department of Housing and Urban Development's website, which posts the Official State Income Limits, which are adjusted based on household size. Accordingly, Table H-2 has been deleted from Attachment H. Permittees are required to use the most current Official State Income Limits; the most current limits are dated December 31, 2021.^{9,10}</p>	Revised as indicated.
San Jose-17 SCVURPPP-34	C.3.e.v.(2)	<p>In the Tentative Order, Permittees are required to report on potential Special Projects; Permittees should only be required to report on Special Projects once they</p>	<p>Reporting on potential Special Projects is useful to Water Board staff. Water Board staff routinely evaluate the use and misuse of Special Projects by looking at approved as well as potential Special Projects. In each</p>	None.

⁹ <https://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits.shtml>

¹⁰ <https://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits/docs/income-limits-2021.pdf>

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		<p>receive final discretionary approval. Potential Special Projects are not useful to Water Board staff and can be provided on request.</p>	<p>Annual Report, reporting on potential Special Projects provides a reasonably accurate and critical prediction of Special Projects (and non-LID stormwater treatment) that will be implemented in the near future. This reporting provides full transparency to the Water Board and to the public about the substantial existing and future use of non-LID stormwater treatment.</p> <p>The reporting requirements provide Water Board Staff with early notice of the Special Projects that are being considered by Permittees prior to the Permittees granting final planning approval. This allows Water Board staff to validate a Permittee’s analysis of each Special Project and its assignment of appropriate LID Treatment Reduction Credits. In a Previous Permit, this data enabled Water Board staff to work with Permittees on several projects to obtain more-robust LID implementation than had originally been proposed.</p> <p>This reporting is consistent with the Previous Permit. As such, the Permittees have existing procedures in place to collect and provide the information. Given the water quality (and other environmental) benefits of LID over other forms of treatment, there is appropriate cause to require this reporting.</p>	

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			Permittees not wishing to provide this option to project proponents also do not have to incur the tracking and reporting costs.	
CCCWP-14	C.3.g.i.(2)	Include "existing managed engineered earthen channels that are not susceptible to erosion" in the definition of "hardened channels" in C.3.g.i.(2); the comment claims that this was the case for hydromodification applicability maps that were previously approved and adopted.	<p>We disagree that certain existing managed engineered earthen channels may not be susceptible to erosion; earthen channels may not be defined as hardened channels.</p> <p>The Water Board did not allow existing managed engineered earthen channels to be defined as hardened channels in previously approved hydromodification applicability maps.</p> <p>Additionally, the Permit addresses the potential adverse impacts of hydromodification from the creation of impervious surface and associated changes in erosive work in channels to which those projects are tributary. In a context of ongoing and anticipated future climate change, in which storms are expected to, in part, increase in intensity and duration, and thus increase potential erosive work in channels, it becomes more important to appropriately address potential impacts associated with new impervious surface.</p>	None.
CCCWP-15	C.3.g.ii and C.3.g.iii	1) Revise C.3.g language so that it is clearer that CCCWP Permittees may use the HM Standard in either	1) We agree and have made a responsive clarifying edit to C.3.g.v.(2).	Revised as indicated.

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		<p>C.3.g.ii or C.3.g.iii. Comment suggests changes to reflect this.</p> <p>2) Comment also suggests a change to the Permittees' implementation of C.3.g.iii subsequent to approval/ conditional-approval of the Permittees' submittal pursuant to C.3.g.vi.(2), removing the ability of Water Board staff to conditionally approve the submittal.</p>	<p>2) The relevant sections of C.3.g and associated information, including cited reports, memos, and the Fact Sheet section, set forth the framework for review and acceptance of CCCWP Permittees' hydromodification management plan submittal, and are subject to public review as part of the current Permit adoption process. Additionally, Board staff will consider providing additional public process, such as an opportunity for public review and comment, on matters that have significant public interest. Such consideration typically will be undertaken in conversation with relevant stakeholders, including the CCCWP Permittees.</p> <p>At the same time, conditional approvals are a useful tool to accept submittals that, as conditioned, comply with Permit requirements, without having to delay or otherwise burden those submittals with substantial additional public process. Conditional approval and additional public review are available options that can benefit water quality, allow for more-efficient review processes, and help ensure permit compliance. We decline to limit the Board's ability to review and approve the CCCWP Permittee's hydromodification management plan submittals.</p>	

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CCCWP-16	C.3.g.vi.(2)(a) and C.3.g.vi.(2)(b)	Delete C.3.g.vi.(2)(a)-(b). The required base case (6.5 percent) in C.3.g.vi.(2)(a) is arbitrary and not supported by the CCCWP Permittees' September 29, 2017, technical submittal or otherwise, is more restrictive than what is required for other county stormwater programs, and will preclude housing projects at hydromodification-applicable sites in the County. The Water Board's March 19, 2021, memo referenced in C.3.g.vi.(2)(a) has not been made available for public review.	The cited provisions are intended to set clear expectations for the CCCWP Permittee's hydromodification plan submittal, and reflect technical reviews and discussions completed during MRP 2, including the Water Board's July 10, 2020, memo commenting on CCCWP's submittal and subsequent March 19, 2021, memo responding to a November 2020 CCCWP memo. ¹¹ The base case sizing factor of 6.5 percent is not arbitrary; it is supported by the CCCWP Permittees' September 29, 2017, technical submittal. The Fact Sheet explains that it is conservative, based on sites with project-scale built-out imperviousness in the upper watershed for the Lower Control Threshold of 0.1Q2, for soil percolation rates of 0.024 inches per hour, as presented in Table 5-7 on page 58 of that submittal. In developing the complete suite of sizing factors, the CCCWP Permittees are required to justify any deviations from the base case as conditions of exception that could allow alternative sizing while still being protective (adhering to the hydromodification standard of maintaining erosion potential less than or equal to 1.0), for different soil types and different applicable geographic	None.

¹¹ July 10, 2020, Memo from Keith Lichten to Karin Graves, CCCWP, "Memo to CCCWP regarding their hydromodification technical report and hydromodification applicability map, submitted Sept. 29, 2017." SF Bay Regional Water Board.
March 19, 2021, Memo from Keith Lichten to Karin Graves, CCCWP, "Response to CCCWP's hydromodification management memo of November 4, 2020, and next steps."

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			<p>characteristics.</p> <p>C.3.g, which references the Water Board's March 19, 2021, memo referenced in C.3.b.vi.(2)(a), has been made available for public review as it was included in the Tentative Order, and as it has been included in the Board Package for the adoption hearing. The memo itself is public and available on request, and it was provided to the CCCWP (the commenter) when it was produced in 2021. The language in the Tentative Order is consistent with that memo and with discussions during MRP 2 between Water Board staff and CCCWP representatives.</p> <p>The specified base case is not more restrictive than what is required for other county stormwater programs, because, as explained earlier in this response, the CCCWP Permittees may deviate from that base case with appropriate justification. In addition, the approach is based on requirements to control erosive work over a specified range of storms, which is the same range. The base case is based on the CCCWP Permittees' submittal. The approaches between countywide programs are not directly comparable, as other programs' approaches rely in part on outlet control, and the CCCWP approach relies</p>	

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			<p>significantly on the expected hydrologic performance of bioretention cells in the absence of outlet control. To ensure they achieve the hydromodification control requirements set forth in the Permit, designs using the CCCWP approach must take into account potential uncertainty regarding performance, which uncertainty is reduced, for example, when outlet controls are used.</p>	

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CCCWP-17	C.3.g.vi.(2)(a) and C.3.g.vi.(2)(b)	Delete C.3.g.vi.(2)(a)-(b) because they are unclear and ambiguous. Gives an example of language in C.3.g.vi.(2)(b) that may be unclear.	<p>We do not agree that these subprovisions should be deleted or that they are ambiguous. They distinguish, in part, between the requirement for projects to manage hydromodification prior to discharge to receiving waters (e.g., on-site or off-site prior to discharge), and CCCWP’s proposal to consider off-site mitigation measures that could provide benefit further downstream (e.g., offsite), but not at the impacting project’s point of discharge to receiving waters, and potentially a significant distance below the project’s point of discharge to receiving waters. In addition, the exclusions in the cited example list potential controls that are outside the control of a particular project proponent and thus have speculative benefit when considered over the life of the impacting project; may not address the project’s hydromodification impacts at the point of discharge; and may not be implemented, so may not provide any hydromodification control benefit. However, we have revised Fact Sheet section C.3.g to clarify this understanding.</p> <p>(A) "The additional mitigation measures shall not include: reliance on... the presence of existing or future HM and LID controls located elsewhere within the catchment,"</p> <p>is distinct from:</p>	We have added clarifying edits to the Fact Sheet, to more clearly distinguish the two cited paragraphs.

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			<p>(B) "The Technical Report may additionally propose alternative or supplemental methods of compliance with Provision C.3.g.iii. HM Standard, including any combination of: ...additional new HM controls located offsite within the same catchment as the receiving stream..."</p> <p>(A) refers to hydromodification management controls that are outside the control of a project proponent and may be speculative or below the point of discharge to a receiving water body (e.g., a creek).</p> <p>(B) refers to controls constructed concurrently and in combination with other controls specified in C.3.g.vi.(2)(b), as an alternative or supplemental method of compliance with the C.3.g.ii. HM Standard: "undersized onsite HM controls... and in-stream controls... which when implemented together achieve the C.3.g.iii HM Standard."</p>	

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ACCWP-19 SCVURPPP- 35 SMCWPPP- 73	C.3.i	Adjust C.3.i accordingly, if the respective categories in C.3.b are changed or reverted.	We agree that if any changes should be made to C.3.b in the Tentative Order, C.3.i would be adjusted accordingly. However, since no changes are proposed to the thresholds in C.3.b in the Tentative Order, no changes are proposed for C.3.i.	None.
Baykeeper- 12d	C.3.j	Allowing the Permittees to meet their numeric retrofit requirements at the county level pursuant to C.3.j.ii.(2)(b) will not result in adequate wasteload reductions for PCBs and mercury, because C.3.j.ii.(2) does not target known sources and is too low to accomplish the required wasteload reductions. The numeric retrofit requirements should target (e.g., PCBs hotspots) specific pollutants, which will make it hard for the public to track achievement of that WLA. The green infrastructure that San Jose will implement pursuant to its consent decree is orders of magnitude greater than even the total combined numeric retrofit requirement of all MRP Permittees. Permittees will not implement green infrastructure; only if there is a mandate. Since the Santa Clara Permittees other than San Jose will have to do very little because of how the Tentative Order allows	<p>The requirements in C.3.j are separate from the requirements in C.11 and C.12. C.3.j is purposefully flexible, in part to help Permittees implement green infrastructure that achieves multiple goals, and to facilitate gaining of Permittee experience with GI implementation in anticipation of ongoing implementation in future permit terms. However, C.3.j requirements do not remove the requirement for Permittees to achieve wasteload reductions under C.11 and C.12. We expect Permittees will consider, and tend to prioritize, C.3.j implementation that also achieves wasteload reductions. This is borne out by San Pablo's ongoing work to develop a countywide trading program, which is expected to include both C.3.j and C.11/12 as its primary drivers.</p> <p>In C.11 and C.12, the estimated reductions for PCBs and mercury resulting from GI implementation were calculated based on the expected pace of GI implementation as well as the expected land use where GI will likely be implemented. For the purpose of these calculations, GI was not assumed to be</p>	None.

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		<p>their numeric retrofit requirements to be met collectively at the county level; C.3.j.ii.(2) should be revised so that numeric retrofit requirements may be met at the watershed scale, but not at the county scale.</p>	<p>broadly implemented in areas heavily contaminated with PCBs and mercury because there are other priority drivers for such implementation. Therefore, the expected scale of PCBs and mercury load reductions from GI expressed in C.11 and C.12 is a realistic assessment of what will be achieved.</p> <p>Permittees may implement a range of approaches to achieve Hg and PCBs WLAs. While those approaches include GI, GI is not expected to be the most important means of control because of the types of land uses (generally not heavily contaminated with PCBs and mercury) where GI implementation will be realized. C.3.j does not preclude recognizing the load reduction benefit from GI implemented pursuant to C.3.j, and those reductions will be recognized. However, the calculations in C.11 and C.12 suggest that the benefit will be limited because of the type of land use where GI will likely be implemented. Because there are numerous drivers for GI implementation (besides presence of PCBs and mercury) and a range of constraints, the flexibility in C.3.j is warranted.</p> <p>Further, allowing the load reductions to be achieved at the county level allows the</p>	

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			<p>Permittees to choose the best locations for GI implementation, including regional projects. Permittees should not be forced to implement GI where it does not make sense merely to achieve a PCBs or mercury load reduction, when other measures may achieve those required reductions more effectively.</p>	
San Jose-2,10 SCVURPPP-4	C.3.j Fact Sheet	<p>The Tentative Order mischaracterizes the Consent Decree issued by the U.S. District Court in San Francisco Baykeeper v. City of San Jose (Case No. 15-CV-00642-BLF, (Consent Decree).</p> <p>It cites the Consent Decree and theorizes that the City of San Jose “will retrofit (or cause to be retrofitted) roughly 3,750 acres of impervious surface between 2020 and 2030, and roughly 10,000 acres of impervious surface between 2030 and 2040 ...” (Note 3.) This is factually inaccurate. The Consent Decree does not contain an acreage requirement. Instead, it requires the City to appropriate</p>	<p>Comment noted. We have revised the Fact Sheet to reflect the expenditure. The scope of the expenditure is such that it is expected to result in substantial retrofit of urban impervious surface with GI during the coming Permit term; that retrofit, to the extent it is not completed for Regulated Projects, may be considered to contribute to the C.3.j GI retrofit requirement. As such, it is appropriate to recognize the Consent Decree and its anticipated effects.</p>	<p>Revised the Fact Sheet to reflect that San Jose is required to spend \$100 million over ten years to implement its Green Infrastructure Plan, which San Jose estimates will result in the retrofit acreages it lists in its Green Infrastructure Plan.</p>

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		<p>one hundred million dollars over the next ten years to implement the projects in its Green Stormwater Infrastructure Plan [Consent Decree, ¶ 53(g).] If the City is unable to obtain funding [Consent Decree, ¶ 54] a dispute resolution process with a federal judge can be followed.</p> <p>Delete references to the Baykeeper Consent Decree throughout the permit, including the fact sheet (C.3.j.(1), (3), and (7); Att. A – 146, 147, 149) and footnotes (Att. A - 147)</p> <p>Therefore, SCVURPPP Co-permittees must plan for the prospect of individual compliance with the proposed provisions.</p>		
SCVURPPP-36	C.3.j.ii.(1)	<p>GSI Plans may not need updating in all of these areas. For example, municipalities are just starting to implement their GSI Plans - it may be too early to revise implementation mechanisms. These updates should be incorporated once enough time has elapsed for cities to propose changes based on experience. The permit should instead clearly</p>	<p>We agree that GI Plans may not need to be updated or supplemented in all the areas listed in C.3.j.ii.(1). The subprovision already states that permittees shall “update and/or supplement their Green Infrastructure Plans,” indicating that Permittees may do either, or both.</p> <p>We have revised C.3.j.ii.(1) to clarify that updates and/or supplements shall be done “as needed.”</p>	Revised C.3.j.ii.(1) as indicated.

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		state that permittees have the option to provide supplemental information for the GSI Plans in the Annual Reports without having to update the plans.		
SMCWPPP-74	C.3.j.ii.(1)	Comment reiterates C.3.j.ii.(1) requirements, but does not make any requests or recommendations.	Comment noted.	None.
ACCWP-a1i,a2i,22 Oakland & San Jose-2b	C.3.j.ii.(2)	Revise the C.3.j. green infrastructure retrofit target down to 1 acre/50,000 in population, from 3 acres/50,000 in population, with a cap of 5 acres.	<p>We have revised the cap to 5 acres from 10 acres, recognizing Permittee comments that there is a cost to green infrastructure retrofit, and timing required for projects to go through the capital improvement planning and implementation process. In addition, the Permit anticipates a continuing and likely accelerating rate of retrofit in subsequent permit terms, which will be based in part on the long-term implementation report under C.3.j.ii.(4). Retaining a 5-acre cap will appropriately require more-substantial implementation by larger Permittees, including the development of Permittee capacity for additional subsequent GI implementation.</p> <p>We disagree that with the suggestion to revise the green infrastructure allocation to 1 acre/50,000 population from 3 acres/50,000 population, because this is an appropriate</p>	Revised the cap to 5 acres from 10 acres. Updated the Fact Sheet and Attachment H.

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			<p>amount of retrofit that will result in a meaningful reduction in untreated impervious surfaces for Permittees individually and regionally, is fair because it requires more-substantial implementation by larger Permittees, whose jurisdictions are also contributing a larger amount of pollutants, including hydromodification impacts, and because it helps ensure the development of Permittee capacity for additional subsequent GI implementation.</p> <p>See also response to combined comment:</p> <p>Oakland-10 CCCWP-21,22</p>	
SCVURPPP-4,37	C.3.j.ii.(2)	Revise the C.3.j. green infrastructure retrofit target down from 3 acres/50,000 in population to 1 acre/50,000 in population with no cap - the retrofit allocations are not equitable since the largest cities' allocations are capped.	<p>See response above to:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p>	<p>See proposed revision above for:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p>

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Oakland-10 SMCWPPP-9 CCCWP-22	C.3.j.ii.(2)	Any targets for implementing green infrastructure in non-Regulated Projects should be part of a long-term plan that considers green infrastructure projects implemented in the public right of way from 2009 through 2030 and 2040.	We agree. The purpose of C.3.j.ii.(4) is to do what the comment requests, that is, recommend revisions to C.3.j.ii.(2) in future Permit terms, to make significant incremental steps towards long-term regional green infrastructure goals. For MRP 3, this cannot be done yet, as the long-term goal that will be investigated via the implementation of C.3.j.ii.(4) will not yet have begun, let alone been completed; instead, C.3.j.ii.(2) has been set as a reasonable, doable incremental step towards a long-term regional green infrastructure goal that will be identified during the coming Permit term.	None.
San Mateo County-4 ACCWP-a2i CCCWP-21	C.3.j.ii.(2)	C.3.j.ii.(2) abandons the programmatic approach that the Water Board adopted in MRP 2 and that the Permittees incorporated into their Green Infrastructure Plans, constrains flexibility and discourages multi-jurisdictional cooperation, and will reduce the Permittees' ability to implement green infrastructure projects with co-benefits, because they will be forced to build the cheapest/easiest green infrastructure to comply with the mandate.	See Master Response Identifier C.3-21.	None.

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<p>Oakland-7, 10 Los Altos-4 San Mateo County-15 SCVURPPP-37 Palo Alto-4 CCCWP-22</p>	<p>C.3.j.ii.(2)</p>	<p>It will be challenging for Permittees to achieve the C.3.j.ii.(2) Numeric Implementation retrofit requirements (as laid out in Table H-1 in Attachment H) because they do not or may not have adequate funding to build and maintain the projects, or because they have other higher priorities for those funds, or otherwise because the projects are expensive. Construction costs combined with a condensed schedule for planning, budgeting, design, and implementation will make projects more expensive to implement than the opportunity-based approach described in Permittees' Green Infrastructure Plans.</p> <p>A key purpose of the Green Infrastructure Plans is to ensure Permittees advance implementable multi-benefit projects that have local public support and are eligible for state and Federal funding when those funds (generally competitive grants) become available.</p> <p>As an example, the City of Union City estimated that their H Street</p>	<p>See Master Response Identifier C.3-22.</p>	<p>See proposed revision for:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p>

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		retrofit project cost approximately \$660,000 per acre treated. At that rate, treating 10 acres would cost \$6.6 million. The Water Board should conduct a cost benefit analysis to determine if that level of expenditure is appropriate for the minimal water quality benefits that would be achieved.		
Oakland-7	C.3.j.ii.(2)	<p>Incorporating GSI into Road Reconstruction Projects should only be required where it is technically feasible.</p> <p>Technical infeasibility should not mandate alternative compliance for which a suitable location/project may not be possible to identify.</p>	See Master Response Identifier C.3-23.	None.
Oakland & San Jose-2b ACCWP-22 Oakland-10	C.3.j.ii.(2)	Oakland would need to treat 10 acres of runoff through non-regulated GSI projects where currently there is no mandate for projects that do not meet the triggers to be considered regulated. Based on the acreage of non-regulated GSI that Oakland has been able to install to date, and the number of projects that have been built to treat that acreage, Oakland would have to	This comment seems to suggest that the City of Oakland would need to start from scratch in planning for the implementation of green infrastructure projects in the public right of way. However, through the development of its Green Infrastructure Plan in MRP 2, and through the implementation of C.3.j.ii Early Implementation of Green Infrastructure Projects in MRP 2, Oakland should already have begun planning for, and arranging funding for, such projects. Oakland's 2019 Green Infrastructure Plan shows that	<p>See proposed revision for:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p>

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		<p>identify, plan for, fund, and build between 20-32 new non-Regulated capital projects below 5,000 square feet in the five-year permit that are not technically prohibited from incorporating GSI.</p>	<p>Oakland is already planning to complete several green infrastructure projects during the MRP 3 term. For example, the first page of Appendix C of Oakland’s Green Infrastructure Plan lists the “Tassafaronga Village” project at 84th Ave. and F St., as a non-Regulated project that is planned for implementation during MRP 3. Another example on that page is the “Fruitvale Alive Gap Closure” project at Fruitvale Bridge and International Ave., which is also a non-Regulated project, and which is also planned for implementation during MRP 3. More (non-Regulated) planned and potential green infrastructure projects are listed in Appendix C of Oakland’s Green Infrastructure Plan.</p> <p>Furthermore, C.3.j.ii.(2) does not specify the size of qualifying green infrastructure projects. Oakland could, in theory, implement significantly fewer than 20-32 green infrastructure projects while still meeting the 10-acre retrofit requirement. Green infrastructure retrofits are not limited to projects involving the creation and/or replacement of significant amounts of impervious surface that would trigger the C.3.b Regulated Project thresholds; Permittees may find situations in which they only need to create/replace the surface area of the treatment measures themselves, and</p>	

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			<p>minimal surrounding areas, thereby avoiding triggering the Regulated Project requirements.</p> <p>While C.3.j.ii.(2) tasks Oakland with retrofitting 10 acres of impervious surface, only 0.2 of those 10 acres need to be implemented within Oakland’s jurisdiction. The remainder can be implemented anywhere else in Alameda County. Oakland may pool resources with other Permittees on regional projects that serve multiple jurisdictions. Pursuant to C.3.j.ii.(2)(b), the Numeric Implementation retrofit requirements may be met at the county level, meaning that only 0.2 of the 10 acres assigned to Oakland actually need to be funded by Oakland, provided that the remainder is funded collectively by other ACCWP Permittees (which may or may not including contributions from Oakland). This is indicative of the level of flexibility in the Tentative Order, while still supporting green infrastructure implementation regionally and at the county level, and while still facilitating Permittees’ further incorporation of green infrastructure implementation into their planning and budget processes.</p> <p>Additionally, pursuant to C.3.j.ii.(2)(h), Oakland could credit the acreage of impervious surface created or replaced for Regulated Road Reconstruction Projects,</p>	

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			<p>specified in C.3.b.ii.(5), towards the Numeric Implementation retrofit requirements specified in C.3.j.ii.(2).</p> <p>C.3.j.ii.(2)(j) provides Oakland additional incentive to coordinate with private development projects, by offsetting Oakland’s assigned 10 acres of green infrastructure retrofit, by up to 1 acre, leaving a remainder of 9 acres. The ordinance that Oakland would be required to adopt – in order to receive that offset – would, in part or in whole, fund Oakland’s implementation of those remaining 9 acres of green infrastructure retrofit.</p> <p>C.3.j.ii.(2)(f) provides additional flexibility on GI project construction timing. Pursuant to C.3.j.ii.(2)(f), if a project is not completed by June 30, 2027 (the end of the MRP 3 permit term), Oakland could still count that project towards the C.3.j.ii.(2) Numeric Implementation retrofit requirements, if it were approved and fully funded.</p> <p>All of that said, we have reduced the cap to 5 acres from 10 acres, which would halve Oakland’s Numeric Implementation retrofit requirement. Were Oakland to utilize C.3.j.ii.(2)(j), the required retrofit would be 4 acres. See the response above to:</p>	

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			ACCWP-a1i,a2i,22 Oakland & San Jose-2b	
Orinda-3 CCCWP-13,22 Oakland-10 Walnut Creek-5 Concord-1	C.3.j.ii.(2)	<p>1) Permittees are challenged to comply with all of the different retrofit requirements in C.3.j and in the rest of C.3. With the threshold for Regulated Projects changing from 10,000 to 5,000 square feet (sf), there will be fewer “voluntary” projects that will count towards achieving this target.</p> <p>2) Remove/delay the numeric retrofit requirements, and instead, allow Permittees to implement their Green Infrastructure Plans at their own self-determined pace via C.3.j.iii No Missed Opportunities, with appropriate indicators (such as policies adopted, projects under design, grant applications submitted, projects started) to provide accountability.</p>	<p>1) See Master Response Identifier C.3-24.</p> <p>2) We do not agree with the request to replace C.3.j.ii.(2) with various programmatic accountability metrics or indicators, for the following reasons.</p> <p>As explained in the Fact Sheet, the retrofit expectation is far below the ultimate need for retrofit in the Permittees’ jurisdictions, considering drivers such as the need to accomplish TMDL wasteload allocations and to reduce the discharge generally of urban runoff pollutants through the MS4. However, the retrofit requirement ensures each Permittee builds capacity by completing or meaningfully participating in at least one project. The retrofit assignments, when summed regionally for the Permittees, will result in about 270 acres of non-Regulated Project impervious surface retrofitted by the expiration date of the Permit, which will make a significant incremental step towards addressing the otherwise unaddressed adverse stormwater quality impacts caused by Permittee’s rights of way, particularly</p>	<p>See the response to:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p>

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			<p>those smaller public streets projects that are not otherwise subject to the same clean water controls as C.3.b. Regulated Projects.</p> <p>The retrofit acreages are required to address pollutants discharges from MS4s because the Permittees have substantial areas of impervious surface—comprised in large part of their existing public roads and parking areas—that discharge urban runoff pollutants to the MS4, but on which projects are not being completed that fall into Regulated Project categories. As such, they are unlikely to be retrofitted with clean water controls and will continue to discharge urban runoff pollutants in the absence of a retrofit requirement. Regulated Projects addressed in C.3.b are only a fraction of the thousands of acres of impervious surfaces in the area covered by this Order. All impervious surfaces contribute pollutants to stormwater runoff, with those in higher density land uses contributing more pollutants. Accordingly, in order to reduce the discharge of storm water pollutants from MS4s to the maximum extent practicable and help attain TMDL wasteload allocations, additional impervious surface areas must be addressed beyond the Regulated Projects. As explained in the Fact Sheet, other jurisdictions in the State of California and elsewhere in the United States have MS4 NPDES Permits with similar non-</p>	

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			<p>Regulated Project numeric retrofits requirements that supplement their retrofit requirements for Regulated Projects.</p> <p>The requirements included in C.3.j.ii.(2) are intended to increase the pace at which Permittees address the pollutant loading and hydromodification impacts from their impervious surfaces.</p> <p>The Permittees’ existing commitments for green infrastructure implementation in Green Infrastructure Plans are insufficient to address the problem associated with impervious surfaces. With few exceptions, the Green infrastructure Plans do not commit to accelerate the existing rate of green infrastructure implementation, or to retrofit existing impervious surfaces (particularly, in the public right of way), with clean water controls to address urban runoff discharges, beyond what MRP 2 already required for Regulated Projects using an LID approach. Consequently, the Green Infrastructure Plans are limited in the extent to which they would reduce the adverse water quality impacts of urban runoff on receiving waters over time.</p> <p>For example, one Permittee’s Capital Improvement Plan indicates consideration of numerous projects with potential for green infrastructure implementation, including miles</p>	

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			<p>of street projects, but its GI Plan sets a retrofit target of only 0.8 acres of public impervious surface by 2040, for both Regulated and non-Regulated public projects. Another Permittee’s GI Plan sets a retrofit target of only one acre of public impervious surface by 2040.</p> <p>These outcomes represent a missed opportunity, in that the Previous Permit’s green infrastructure planning requirement was included as an alternative to expanding the Regulated Project definitions to include all new and redevelopment projects that create or replace 5,000 square feet of impervious surface, and road projects that just replace existing impervious surface area. That is, in the Previous Permit, green infrastructure planning was included in part to provide municipalities the opportunity to evaluate and account for smaller area regulated projects and road replacement projects as part of their GI Plans, and develop commitments to implementation that would be more efficient and effective for them than a Permit requirement to include all such projects.</p> <p>The retrofit projected by Permittees in their Green Infrastructure Plans, as provided in Table A-4 of the Fact Sheet, shows that despite the opportunity given to flexibly</p>	

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			<p>capture smaller projects in Green Infrastructure Plans in lieu of a numeric permit requirement in MRP 2, the Permittees have not committed to accelerating the existing rate of green stormwater infrastructure implementation, or to retrofit existing impervious surfaces with clean water controls to address urban runoff pollutant discharges from existing impervious surfaces, beyond what MRP 2 already required for Regulated Projects.</p> <p>For these reasons, we do not agree with the commenters’ request to remove/delay the numeric retrofit requirements, and instead, allow Permittees to implement their Green Infrastructure Plans at their own self-determined pace via C.3.j.iii No Missed Opportunities, with appropriate indicators to provide accountability.</p> <p>See also the response above to:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p>	
SCVURPPP-2a,4	C.3.j.ii.(2)	The Water Board should recognize the significant water quality benefits that have occurred as a result of GSI/LID implemented to date to address stormwater runoff from parcel-based development (as opposed to within the public	Comment noted. These efforts will be considered pursuant to C.3.j.ii.(4).	None.

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		ROW). SCVURPPP Co-permittees have required the construction of GSI/LID on over 1,200 projects since new/redevelopment requirements went into effect in 2003. As a result, more GSI/LID treatment measures are now in place in Santa Clara County than in any other county in the SF Bay Area.		
CCCWP-13	C.3.j.ii.(2)	Revise C.3.j.ii.(2) to incentivize moving projects within our Green Infrastructure Plans closer to “shovel-ready” status so that our communities are in the best position to receive state and Federal infrastructure funding when it becomes available.	Comment noted. We disagree that edits are needed, as Permittees are incentivized to move GI Plan projects closer to shovel-ready status by: (1) the potential availability of grant funds; (2) the proposed retrofit implementation requirements during the coming permit term, and the opportunity to contribute to wasteload reductions for pollutants including mercury and PCBs; and (3) likely ongoing future retrofit requirements in subsequent permit terms. These expectations are intended, in part, to support Permittee efforts to complete funding initiatives that may be necessary to continue to expand implementation of GI retrofit measures.	None.

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Oakland-10 CCCWP- 21,22	C.3.j.ii.(2)	<p>1) Regarding the C.3.j.ii.(2) Numeric Implementation retrofit requirements, the total amount and division between Permittees does not seem logical or fair, and no rationale was provided. The overall amount of Green Infrastructure mandated regionwide is not tied to any specific water quality improvement goal, and the allocations to individual municipalities are arbitrary.</p> <p>2) Assigning three acres of non-Regulated Project impervious surface area per 50,000 in Permittee population does not address the differences in opportunities to incorporate Green Infrastructure, nor does it take into account the different financial or technical capabilities within each jurisdiction.</p>	<p>1) As explained in the Fact Sheet regarding Table H-1 of Attachment H, Permittees were assigned three acres of non-Regulated Project impervious surface retrofit per 50,000 population using the 2019 U.S. Census Bureau Population Estimate, prorated, with a minimum requirement of 0.2 acres and a maximum requirement of five acres. Rationale for the numeric retrofit expectation, to be accomplished during the Permit term as described in C.3.j.ii.(2), is provided in the Fact Sheet. It reflects a very modest goal and is far below the ultimate need for retrofit in the Permittees' jurisdictions, considering the vast amount of impervious surfaces and drivers such as the need to reduce the discharge of urban runoff pollutants through the MS4 and make progress attaining TMDLs. The retrofit requirement ensures each Permittee builds capacity by completing or meaningfully participating in at least one project. Permittees are expected to use their GI Plans to help inform the selection of retrofit projects. In addition, the retrofit requirement uses population as a rough proxy for Permittee capacity to complete retrofit work. In combination with the acreage maximum of five acres (and minimum retrofit of 0.2 acres), the retrofit requirement is intended to be a flexible and doable goal during this Permit term.</p>	<p>See the proposed revision for:</p> <p>ACCWP-a1i, a2i, 22 Oakland & San Jose-2b</p>

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			<p>These retrofit assignments, when summed regionally for the Permittees, will result in about 217 acres of non-Regulated Project impervious surface retrofitted by the expiration date of the Permit, which will make a significant incremental step towards addressing the otherwise unaddressed adverse stormwater quality impacts of Permittee’s rights of way, particularly those smaller public streets projects that are not otherwise subject to the same clean water controls as C.3.b. Regulated Projects.</p> <p>Please additionally refer to the response to the following combined comment:</p> <p>Orinda-3 CCCWP-13,22 Oakland-10 Walnut Creek-5 Concord-1</p> <p>See the response above to:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p> <p>2) To the contrary, differences in opportunity to implement green infrastructure, and financial differences, are accommodated (among other relevant Subprovisions) by C.3.j.ii.(2)(b), which would allow Permittees</p>	

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			<p>to meet the numeric retrofit requirements listed in Table H-1 of Attachment H on a countywide basis. Only if Permittees within a given county were to fail to collectively achieve their numeric retrofit requirements, would each Permittee within that county be separately responsible for achieving its individual retrofit requirement.</p> <p>Regarding financial concerns, please additionally refer to the response to the following combined comment:</p> <p>Oakland-7,10 Los Altos-4 San Mateo County-15 SCVURPPP-37 Palo Alto-4 CCCWP-22</p> <p>We do not understand the comment that C.3.j.ii.(2) does not take into account the different technical capabilities within each jurisdiction. Technical capabilities among planning staff in different jurisdictions will always differ, but we do not believe that is cause enough to have differing requirements, especially for requirements that can be implemented.</p> <p>Please refer to the response to Oakland-7.</p>	

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Oakland-10	C.3.j.ii.(2)	Delete C.3.b.ii.(5) (Other Road Projects) so that there are non-regulated projects in the public ROW where green infrastructure could be implemented, via C.3.j.iii No Missed Opportunities.	<p>Under C.3.j.ii.(2)(h), Permittees may credit the acreage of impervious surface created or replaced for Regulated Road Reconstruction Projects, specified in C.3.b.ii.(5), towards the Numeric Implementation retrofit requirements specified in C.3.j.ii.(2).</p> <p>See response to the following combined comment:</p> <p>Orinda-3 CCCWP-13,22 Oakland-10 Walnut Creek-5 Concord-1</p>	None.
San Pablo-5	C.3.j.ii.(2)	C.3.j.ii.(2) does not take into account cities like San Pablo, that have small land area (2.6 square miles) but dense population (32,000). Based on staff analysis, the City only owns approximately three (3) acres of public parcels with impervious area that has not already been treated.	<p>The Provision considers small jurisdictions like San Pablo. Permittees can meet their C.3.j.ii.(2) obligations at the county level, aside from the minimum 0.2 acres, but even that minimum obligation can be implemented in another jurisdiction via financial contribution.</p> <p>Also, pursuant to C.3.j.ii.(2)(h), Permittees may credit the acreage of impervious surface created or replaced for Regulated Road Reconstruction Projects towards the Numeric Implementation retrofit requirements. In addition to the 3 acres of public parcels with impervious area that has not already been treated, San Pablo, like other cities, has substantial areas of public roads that do not</p>	None.

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			have water quality treatment controls. These represent potential opportunities for retrofit, including as part of significant road reconstruction projects.	
SCVURPPP-37 SMCWPPP-75	C.3.j.ii.(2)	"Final discretionary approval" does not really apply to public projects, so it's hard to define.	We have made a responsive edit, to clarify that Permittees can count private GI projects which have received final discretionary approval, and public GI projects which have been fully funded and have had construction scheduled.	Revised as indicated.
SCVURPPP-37	C.3.j.ii.(2)	Note that the population listed in Table H-1 for unincorporated Santa Clara County is incorrect - it should only apply to the portion of the County within the SF Bay watershed. The correct population of the portion of unincorporated Santa Clara County that drains to Region 2 is 98,110.	The requested change has been made.	Revised Table H-1 in Attachment H, as recommended.
SCVURPPP-37 SMCWPPP-75	C.3.j.ii.(2)	Allow permittees more flexibility for GSI implementation, such as requiring GSI retrofits in ROW along frontage, in lieu of other requirements like lowering thresholds and regulating public works projects.	This crediting is explicitly allowed in C.3.j.ii.(2)(j), to help Permittees leverage private development and redevelopment to achieve their C.3.j.ii.(2) Numeric Implementation retrofit requirements. It does not follow logically why, additionally, this crediting should be included in lieu of the changes to C.3.b.	None.

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CCCWP-21	C.3.j.ii.(2)	The replacement of existing incentives and credits with prescriptive, acre-based mandates would serve to effectively override Green Infrastructure goals and targets established by municipalities in their Green Infrastructure Plans, and thereby make it more difficult for Permittees to meet those goals and targets. Up to now, Permittees have relied on Water Board staff to work with municipalities in a collaborative manner to facilitate accomplishment of Green Infrastructure projects. Replacing this incentive-based approach with numerical mandates will have the unintended consequence of reducing Permittees' capacity to further their Green Infrastructure programs.	Please see response to combined comment: Orinda-3 CCCWP-13,22 Oakland-10 Walnut Creek-5 Concord-1 and to comment CCCWP-13.	None.
CCCWP-22	C.3.j.ii.(2)	The Numeric Implementation retrofit requirements should be identified in a more appropriate context of long-term infrastructure renewal (non- Regulated Projects) combined with ongoing redevelopment on private and public parcels (Regulated Projects)	We agree. This is the purpose of C.3.j.ii.(4).	None.
SMCWPPP-75	C.3.j.ii.(2)(c)	More clarity needed as to how regional projects count toward the	Comment noted. Substantial contribution is appropriately flexible while setting	None.

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		GI targets and what represents a "substantial contribution."	expectations that the contribution be meaningful. Discussions with the San Mateo Permittees during MRP 2 have suggested that substantial contributions could be associated with a prorated combined planning, construction, operation, and maintenance cost for a project (prorated relative to the contributing Permittee's obligation), could consist of a similar amount of in-kind contribution of engineering design or related services, or other similar quantifiable contributions. Those approaches are all likely to be acceptable under C.3.j.ii.(2)(c). Given the range of potential projects and situations, it is preferable to allow for flexible language. To the extent there is concern for particular instances, this issue may be addressed during the permit term by conversations with Board staff.	
City of Dublin-5 ACCWP-23	C.3.j.ii.(2)(d))	Clarify language in C.3.j.ii.(2)(d).	The suggested changes are appropriate because they will clarify the Provision. We have made the changes, though not word-for-word.	Revised C.3.j.ii.(2)(d) as suggested.

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<p>SCVURPPP-2a,4,37 Los Altos-4 San Pablo-5 SMCWPPP-75 CCCWP-21,22 Palo Alto-3</p>	<p>C.3.j.ii.(2)(e)</p>	<p>Requiring GSI implementation in MRP 3 based on population does not consider the significant level of GSI implementation that has occurred to-date, and therefore penalizes Permittees for early implementation of GSI. Allow Permittees to receive credit toward GSI target goal for all GSI projects constructed during MRP 2, or at a minimum, change applicable date from Jan. 1, 2021 to Jan. 1, 2019. Others (e.g., CCCWP-22) request that the date be pushed back to 2009.</p> <p>SCVURPPP: 20 voluntary GSI projects since FY 2009-10, treating approximately 40 impervious acres and expending over \$10 million.</p> <p>San Pablo: San Pablo has already installed GSI at City Hall, the San Pablo Community Center, the Women Infants and Children (WIC) facility, Rumrill Sports Park, and on various roads.</p> <p>Palo Alto: The City’s 2.3 mile Charleston-Arastradero Transit corridor project cost approximately \$19.5 million dollars, took 20 years</p>	<p>We recognize the substantial efforts Permittees have made to implement GSI. Permittees are not penalized for their voluntary efforts or for required "no-missed-opportunities" implementation under C.3.j.iii. We expect that any such projects that are not counted towards C.3.j.ii.(2) in MRP 3 will count towards the long-term green infrastructure target that will be developed during MRP 3 pursuant to C.3.j.ii.(4), and which will inform changes to C.3.j.ii.(2) Numeric Implementation retrofit requirements in future Permit terms. The purpose of C.3.j.ii.(2), as explained in the Fact Sheet, is to make a significant incremental step towards addressing the otherwise unaddressed adverse stormwater quality impacts of Permittee’s rights of way, including those smaller public streets projects that are not otherwise subject to the same clean water controls as C.3.b. Regulated Projects.</p> <p>C.3.j.ii.(2)(e) is intended to recognize projects being completed over the relatively short-term period around the MRP 3 permit term, while still supporting modest, but significant retrofit during the MRP 3 permit term and development of Permittee capacity to complete GSI retrofit. We expect that projects completed earlier than the C.3.j.ii.(2)(e) date will be considered towards</p>	<p>See the proposed revision for the following combined comment:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p>

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		<p>to plan and four years to construct due to many stakeholders, various project needs, and a significant scope. The City was proactive and insisted that the project include GSI due to C.3.j.iii., which required public and private projects to include GSI to the maximum extent practicable. This sub-provision was intended to prevent “missed opportunities,” which the City adhered to, allocating funding for approximately nine acres of voluntary GSI treatment in the City’s right-of-way through this project. Palo Alto requests that all non-regulated GSI projects carried out since 2009 count towards the Tentative Order GSI retrofit treatment requirement. The City has continued in the direction of “no missed opportunities,” resulting in three additional funded projects to be completed during the next permit term which will provide 1.6 acres of stormwater treatment. The City received a \$1.2 million-dollar U.S. EPA grant to conduct a project with partners to retrofit two parking lots, one in Palo Alto and the other in the Santa Clara. While this grant is appreciated and</p>	<p>the long-term GSI goal. How that is done will be considered under C.3.j.ii.(4) which is to revise the C.3.j.ii.(2) Numeric Implementation retrofit requirement for future Permit terms.</p> <p>See also the response above to the following combined comment:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p>	

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		<p>offsets City funding, it will take significant staffing resources to successfully carry out the grant scope over four years. Moreover, despite a yearly allocation of \$385,000 for GSI construction from the City’s Stormwater Fund, construction costs are continuously increasing, and supplementing with the City’s general fund budget will be difficult due to Covid impacts and numerous community needs.</p>		

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<p>San Mateo County-4,15 SCVURPPP-4,37 ACCWP-22 Oakland-10 San Pablo-4,5 CCCWP-21,22 Palo Alto-4</p>	<p>C.3.j.ii.(2)(f)</p>	<p>Even if the resources needed to construct such projects are available, it's not possible for Permittees to achieve the C.3.j.ii.(2) Numeric Implementation retrofit requirements (as laid out in Table H-1 in Attachment H) in the five-year MRP 3 term, as green infrastructure projects take longer than five years to identify/plan/design/fund/bid/construct. Extend the deadline in C.3.j.ii.(2)(f). This is especially true of larger, more cost-effective projects.</p> <p>CCCWP-22 further requests: Because of the uncertainty involved in successfully implementing any specific Green Infrastructure project during a 5-year permit term, we urge that any numeric goals apply regionwide or countywide rather than Permittee-by-Permittee.</p>	<p>Much of the referenced processes have already been completed, because Permittees underwent identification/planning (and some design as well) for their Green Infrastructure Plans, in 2019. And under MRP 2's No Missed Opportunities requirement, Permittees have already begun further design/funding/ bidding/construction of the projects in their Green Infrastructure Plans.</p> <p>Regarding the comment that it will be challenging to meet those requirements in the 5-year MRP 3 term, especially for larger, more cost-effective projects, C.3.j.ii.(2)(f) allows Permittees to count projects even if they haven't yet been completed, as long as they are approved and funded.</p> <p>Regarding comment CCCWP-22 that Permittees should be able to meet the Numeric Implementation retrofit requirements at the countywide level, we agree;C.3.j.ii.(2)(b) already allows that.</p> <p>We disagree with the suggestion in CCCWP-22 that Permittees be able to meet the Numeric Implementation retrofit requirements at the regional level, and the comment provides no justification for that request, other than "uncertainty involved in successfully implementing any specific Green Infrastructure project during a 5-year</p>	<p>See the proposed revision for the following combined comment:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p>

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			<p>permit term.” Allowing the requirement to be met on a countywide basis provides sufficient flexibility while still supporting several of the goals of C.3.j.ii.(2) that are expressed in the Fact Sheet, including 1) addressing the otherwise unaddressed public rights of way across the entire region (which will also achieve geographically broader water quality benefits) as opposed to focusing the work in just one or a few jurisdictions, and 2) getting Permittees to build the institutional capacity necessary to implement green infrastructure projects within their jurisdictions.</p> <p>Please see also the response above to the following combined comment:</p> <p>ACCWP-a1i,a2i,22 Oakland & San Jose-2b</p> <p>and see response to Baykeeper-12d</p>	
CCCWP-10	C.3.j.ii.(2)(g)	C.3.j.ii.(2)(g) is confusing.	As stated in the Provision, controls implemented that satisfy all criteria in both C.3.j.ii.(2)-(3) and C.12.c, may be counted towards the metrics in both of those Provisions.	None.
CCCWP-11	C.3.j.ii.(2)(h)	C.3.j.ii.(2)(h) does not allow Permittees to additionally credit the acreage of certain C.3.b.ii.(1)(a) Regulated Projects towards the C.3.j.ii.(2) Numeric Implementation retrofit requirements, and this is	Permittee may get credit for GSI implementation under C.3.b.ii.(5), Significant Road Reconstruction, for the C.3.j.ii.(2) Numeric Implementation retrofit requirements.	None.

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		confusing because either C.3.j.ii.(2) or C.3.b.ii.(5) could determine the total amount of retrofit conducted during the Permit term.		
ACCWP-24	C.3.j.ii.(3)	If the alternative treatment systems are "approved" during the Permit term, allow use of those systems for C.3.j green infrastructure projects.	No alternative treatment systems will be "approved" during the Permit term. The use of such systems for Regulated Projects would require a Permit amendment, and if that were to happen, C.3.j.ii.(3) would change accordingly, since it references (rather than reiterates) the requirements of C.3.c-d. Any additional necessary corrections would be made during the Permit amendment.	None.
SCVURPPP-37,38 SMCWPPP-75,76	C.3.j.ii.(4)	Support the opportunity to work with Water Board staff in the Technical Working Group and request that this process be used to create a more equitable and achievable set of longer term GSI targets that allow recognition of GSI projects completed in Permittees' jurisdictions to-date, including projects that are both public and private, and regulated and non-regulated.	Comment noted.	None.

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<p>SCVURPPP-37,39 SMCWPPP-75 San Jose-18</p>	<p>C.3.j.iii</p>	<p>The "no missed opportunities" requirement is redundant considering the GSI numeric implementation targets. Unclear if this is in addition to the GSI implementation requirements, or a process that can be used to identify potential GSI retrofits. Projects reported under the No Missed Opportunities provision are captured under the GSI numeric implementation targets provision, resulting in duplicative reporting effort with no benefit to the City or Water Board.</p>	<p>We have retained C.3.j.iii because there may be projects that are feasible for Permittees to implement beyond the mandatory minimums specified in C.3.j.ii.(2). Additionally, one of the C.3.j goals is to maintain and grow Permittee capacity to implement GSI, and C.3.j.iii supports that by supporting Permittee review of capital improvement projects to evaluate potential GSI implementation and retrofit opportunities. To delete C.3.j.iii would be to accept that the Permittees cannot do any more than the minimum that the Permit would specify in C.3.j.ii.(2), but we have not received information to support that conclusion.</p> <p>The reporting as described does not appear to be duplicative. The No Missed Opportunities reporting established under MRP 2 would be continued under MRP 3, and consists of reporting Permittees' potentially eligible capital improvement projects and the outcomes of No Missed Opportunity reviews. By contrast, numeric implementation targets may be satisfied by one or more projects or participation in or contribution to a joint or regional project or projects. For some Permittees—particularly those with limited capital improvement project lists—the numeric implementation reporting may be similar to the No Missed Opportunities reporting, but for many it is</p>	<p>None.</p>

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			likely to be much smaller in scope. To the extent there are similarities, preparation of one list is likely to simplify the preparation of the other.	
ACCWP-20,21	C.3.j.v & C.3.j.ii.(1)(b)	The numerous proposed additional tracking and reporting requirements add up and, as a whole, require substantial resources.	Please see the responses to San Jose-20 and the following combined comment: CCCWP-3, CCCWP-4.	See the proposed revision for San Jose-20.
San Jose-19 SCVURPPP-40 SMCWPPP-78	C.3.j.v.(1)	1) Remove the requirement in C.3.j.v.(1): "The tracking and mapping tools shall be used by Permittees to inform issues relevant to program management, such as life cycle costs, asset management, operation and maintenance frequency, and beneficial design changes," because the tracking tool isn't easily used for those purposes.	1) We disagree. The tracking and mapping tools are intended, in part, to inform issues relevant to program management. To the extent the tools do not already do that, they must be modified/updated accordingly. 2) We disagree. This subprovision would require the Permittees to continue to use the tools they developed under MRP 2. To facilitate inter/intra-comparability and general utility, including identification of trends and challenges that can lead to program improvement, the tracking and mapping tools	None.

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		2) Permittees should be allowed to use other tracking/mapping tools instead of the countywide tracking/mapping tools developed during MRP 2.	must be at least consistent at the county level, if not also consistent at the regional level. Additionally, Permittees' use of individually developed tools, would complicate achieving those benefits, may complicate longer-term tracking of GSI implementation, and would complicate access to and use of the information by other parties, including the Water Board and the public.	
ACCWP-25	C.3.j.v.(1)(b))	1) There may be issues with making some of this GI tracking/mapping information public; and 2) it is burdensome.	1) Comment noted. The subprovision allows flexibility with respect to the information that must be made available to the public, and notes that additional information may not be made available to the public. This flexibility is sufficient to accommodate the stated concern. The comment does not identify elements Permittees would not want to make available to the public, why that would be, or recommend specific changes. 2) We recognize there is effort involved in making information available electronically using existing tools. In some cases, Permittees are already providing that information, so there is little to no additional effort needed. The subprovision has been crafted to allow flexibility and minimize the effort involved to achieve the required outcome. That effort is balanced by the benefit of recognizing GSI implementation, educating the public, and allowing for public	None.

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			<p>review and support of ongoing stormwater program efforts. Making the information available provides transparency and accountability regarding the Permittees' progress on their implementation of the green infrastructure requirements in C.3.j.</p>	
Oakland-11	C.3.j.v.(1)(b)	<p>The requirement to provide a description of design, location, land use type, and area treated, is excessive. If detailed information is needed, it can be provided upon request. This level of reporting has no water quality nexus and is an excessive administrative exercise. This takes Permittees' focus away from implementing measures to protect and improve water quality.</p>	<p>This comment misinterprets the language in the Tentative Order; C.3.j.v.(1)(b) is not a reporting requirement, it is a tracking requirement, which must be kept updated and made available to the Water Board. The Permittees do not have to compile the information in the tools and then "report" that information; rather, they may provide a link to the online tools (and update the link, should it change).</p> <p>It is our understanding that the information that C.3.j.v.(1)(b) specifies should be included in the tools is already tracked by the Permittees, as that information is generated and used during Permittees' implementation processes. The main task, therefore, is entering that information into the tools, for each new green infrastructure project.</p>	None.

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			Regarding the nexus between this tracking and water quality, please see response to ACCWP-25.	

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San Jose-20	C.3.j.v.(2)	<p>Do not require Permittees to report on updates to their Green Infrastructure Plans because they may not need to make any updates in any particular year. Instead require them to report on supplemental information, if/when Permittees determine that such supplemental information is necessary. Delete "update and/or" from C.3.j.ii.(1).</p> <p>Require reporting on such updates/ supplementals every 2-3 years instead of annually.</p>	<p>C.3.j.ii allows Permittees to self-determine the need for updates and/or supplemental information for their Green Infrastructure Plans. For some Permittees, it may be necessary to update their Green Infrastructure Plans, and therefore we do not agree with the requested change to C.3.j.ii.(1). However, as the comment requests, C.3.j.ii.(1) allows Permittees to submit supplemental information instead of updated Green Infrastructure Plans, as appropriate.</p> <p>If in a given reporting year, there is no update or supplemental information to report on, Permittees can state that in their Annual Report.</p> <p>However, we agree that it is acceptable to reduce the frequency of reporting on Permittees' implementation of C.3.j.ii.(1) Programmatic Implementation. Therefore, we have reduced that reporting to 2024 and 2026, instead of every year.</p> <p>See also response to SCVURPPP-36.</p>	Reduce the frequency of reporting on programmatic implementation, as indicated.
SCVURPPP-41	C.3.j.v.(2)-(3)	Requests that C.3.j reporting be reduced, for example, by requiring reporting on programmatic implementation every 2-3 years instead of annually.	See response to San Jose-20.	See proposed revision for San Jose-20.

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SMCWPPP-79	C.3.j.v.(2)-(6)	Comment states that C.3.j.v.(2)-(6) constitutes a "major reporting requirement... although WB staff and Permittees had agreed on a goal to reduce reporting throughout the Permit."	See response to San Jose-20.	See proposed revision for San Jose-20.
ACCWP-26	C.3.j.v.(3)	Additional tracking/reporting that requires substantial resources when considered with other tracking/reporting requirements.	This one-time requirement to report on lessons learned, including attainment of the C.3.j numeric retrofit requirements, is important to inform understanding of this work and expectations in subsequent permit terms regarding retrofit. In turn, this should allow improvements in the quality and efficiency of implementation.	None.
MRP 3 Testimony Hearing Transcript, October 12, 2021, Josh Bradt – Page 189 (Line 24- 25), 190 (Line 1-25), 191 (Line 1-25), 192 (Line 1- 25), 193 (Line 1-20)	C.3	My name is Joshua Bradt. I'm an Environmental Planner and Project Manager at the San Francisco Estuary Partnership and I'm here to speak on green infrastructure as a planner and practitioner. Our organization's both a program of the U.S. EPA's National Estuary Program, and a program of the Association of Bay Area Governments. We facilitate collaborative, innovative projects with all types of partners, and help restore and protect water quality	Comment noted.	None.

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		<p>and habitats in and around the estuary. The Water Board has long been a key partner, with representation on our Implementation Committee.</p> <p>The MRP process has done an excellent job of establishing realistic expectations regarding the implementation of green stormwater infrastructure in the public realm. The initial ten regional green infrastructure demonstration projects from the first MRP was too little, but simply calling for more would be too big.</p> <p>MRP 2's mandate for each permittee to develop actionable green infrastructure master plans was an important step in ensuring that green infrastructure would break out of the stormwater manager silo, and be understood and supported by other municipal divisions, departments, and management level decision makers.</p> <p>The Estuary Partnership stands ready to support the Water Board and the permittees in meeting the</p>		

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		<p>latest requirements of the MRP, as the Region moves from LID planning to implementation and monitoring.</p> <p>We recognize the multiple benefits that come with green infrastructure, beyond water quality improvements, such as reducing hydraulic loading of typically under-sized stormwater drainage networks, greening the public right of way, and reducing heat islands in urban areas.</p> <p>It's likely that the community benefits and visible approach to stormwater management that comes with green infrastructure will lead to public support for developing local funding streams.</p> <p>We're also very familiar with the challenges and costs of retrofitting the existing streetscape of these interventions. We're just completing the San Pablo Avenue green stormwater spine, which treats over 6 acres of impervious surface runoff at four sites, in four cities. And this project really drove home the cost of accommodating</p>		

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		<p>utilities, which do not want green infrastructure facilities over their assets. These conflicts may recede as more projects come online, and tributary areas to green infrastructure facilities eventually decrease the sizing requirements, and allow for smaller projects within these already programmed spaces.</p> <p>The Estuary Partnership also partnered with the San Francisco Estuary Institute in several cities to develop and enhance the Green Plan IT Tool, also called Green Plan IT, where watershed-based green infrastructure master planning.</p> <p>This online module is available for free to any municipality, but most have joined with their countywide Clean Water Programs, using private consultant software to develop their green infrastructure plans.</p> <p>But the Green Plan IT Tool is compatible with most of these proprietary tools, so it could be a prime candidate to be a regional</p>		

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		<p>dataset for implementation progress, and treatment tracking and recording.</p> <p>We also have a GI Resources webpage, at the Estuary Partnership website, that provides design and policy guidance, case studies, and water quality monitoring reports.</p> <p>And finally, the costs of retrofitting are very steep. Always, my recommendation is for GI facilities to be planned as part of a larger street improvement project.</p> <p>We've completed a fact sheet that's approved by the Metropolitan Transportation Commission, that specifies how green infrastructure can be an eligible cost in its One Bay Area Grant, or OBAG funding program.</p> <p>And we have a draft version of a similar fact sheet for eligibility of green infrastructure activities using SB 1 funds. That's awaiting approving from the California Transportation Commission.</p>		

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		So, consider the Partnership as a resource, and potential partner in GI planning, implementation, and grant seeking.		
MRP 3 Testimony Hearing Transcript, October 12, 2021, Will Provost, El Cerrito – Page 155 (Line 20- 25), 156 (Line 1-25), 157 (Line 1-25), 158 (Line 1- 16)	C.3.j	<p>El Cerrito is implementing its Green Infrastructure Plan now, and the numeric requirement in C.3.j would undermine those efforts.</p> <p>The City has used federal stimulus funds to build rain gardens as part of streetscape improvements projects on San Pablo Ave. The City used State and Urban Greening Grant to build a park-like bioretention facility that treats runoff from 7 acres, that's shown on the slide.</p> <p>Last year, the City added bioretention facilities on San Pablo Ave. as part of SFEL's Green Stormwater Spine Project [which was substantially funded by Caltrans]. Successful GI projects are closely coordinated with multi-mobile transportation improvements and with urban revitalization.</p> <p>A successful project serves multiple purposes, is funded by</p>	<p>Please see the responses to other similar comments regarding C.3.j, including the responses to the following combined comments:</p> <p>San Mateo County-4,15 SCVURPPP-4,37 ACCWP-22 Oakland-10 San Pablo-4,5 CCCWP-21,22 Palo Alto-4</p> <p>And:</p> <p>San Mateo County-4 ACCWP-a2i CCCWP-21</p> <p>And:</p> <p>Orinda-3 CCCWP-13,22 Oakland-10 Walnut Creek-5 Concord-1</p> <p>And:</p>	<p>Please see the proposed revisions for other similar comments regarding C.3.j, including the proposed revisions for the following combined comments:</p> <p>San Mateo County-4,15 SCVURPPP-4,37 ACCWP-22 Oakland-10 San Pablo-4,5 CCCWP-21,22 Palo Alto-4</p> <p>And:</p> <p>San Mateo County-4</p>

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		<p>multiple sources, and has community support. Flexible timing is everything.</p> <p>We brought these lessons in our GI Plan and there are two examples. A hotel redevelopment project; runoff treatment will include bioretention near the corner of Cutting Blvd. and San Pablo Ave., which will capture runoff in the southbound lanes of San Pablo Ave. And here we're leveraging the private development project to actually capture some public water from the public ROW.</p> <p>BART is building, is proposing to build, a 6-acre parcel at our El Cerrito Plaza BART station. Runoff from the roofs and walkways will be treated and we'll also work with them to treat some runoff from adjacent streets.</p> <p>We have many projects in our plan, but we can't guarantee completion in the 5 years the Tentative Order would require. Like other cities, we have to redirect resources to less valuable, less well-integrated projects to</p>	<p>CCCWP-13</p>	<p>ACCWP-a2i CCCWP-21</p> <p>And:</p> <p>Orinda-3 CCCWP-13,22 Oakland-10 Walnut Creek-5 Concord-1</p> <p>And:</p> <p>CCCWP-13</p>

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		<p>meet at minimum numeric requirement.</p> <p>An arbitrary numeric requirement would undermine the plan we have already in progress. And our biggest need is for help from your staff and from you all in finding funding. We ask that you direct staff to work with us. Let us focus on getting projects shovel ready, so we can qualify for federal stimulus or infrastructure funds. Let us implement the plan we submitted to you only two years ago. With this direction, I think we can come to agreement with your staff and El Cerrito could support this requirement in the final Order</p>		

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Provision C.4. – Industrial and Commercial Site Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
<p>SCVURPPP-48 to 55 SMCWPPP-86 to 93 CCCWP-30 to 32 ACCWP-29 to 31 City of Oakland-13 and 14</p>	<p>C.4 Fact Sheet</p>	<p>There is no rationale provided in the Fact Sheet for the increase in reporting requirements related to reporting individual potential/ actual discharges resolved, sites at each enforcement action level, number of sites with enforcement actions unresolved in a timely manner, and highest level of enforcement implemented, including business names/ addresses.</p> <p>There is an increase in reporting requirements from MRP 2 to MRP 3 with no rationale provided for the need for this information.</p> <p>Provide rationale for increased reporting requirements.</p>	<p>Although the additional reporting requirements would allow the Water Board to more specifically evaluate which industrial and commercial sites have repeated, escalated, or unresolved enforcement actions, and coordinate with Permittees to help prioritize their oversight of facilities of greater concern, during this Permit term we will only require the Permittees to make the inspection tracking system available upon request, consistent with MRP 2 and the requirements for construction sites in C.6. If we determine through audits, inspections, or tracking system review during this Permit term that there are sites of particular concern that are not appropriately being addressed to resolve violations or referred to the Water Board for escalated enforcement, we will consider the need for more specific reporting requirements during a future permit reissuance.</p>	<p>Removed additional reporting requirements.</p>
<p>Baykeeper-13</p>	<p>C.4.b</p>	<p>Revise C.4.b.ii.(2).(b) to require a minimum number of inspections per year. We recognize that each Permittee’s jurisdiction varies in size, and therefore no single number could fairly apply to all Permittees, but instead recommend a revision to include a set percentage (i.e., 10%) of industrial and commercial sites</p>	<p>The Tentative Order has not been updated to require Permittees to inspect a minimum percentage of facilities. As the commenter points out, the number of facilities in each municipality varies greatly. For larger Permittees, even a small percentage of facilities would translate to a high number, and the range of potential water quality issues among facilities, and more broadly within a permittee’s jurisdiction, gives benefit</p>	<p>None.</p>

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		with potential to discharge stormwater pollutants be inspected annually.	to permittees having the flexibility to use resources for relatively more-urgent water quality issues. In addition, the Permittees' resources and capacity vary widely. The Water Board has only general information about the Permittees' finances, and no control over the allocation of resources to stormwater management, and is mindful of setting targets with which Permittees are incapable of complying. That said, C.4.b requires the Permittees to establish a prioritized inspection plan that includes a stated inspection frequency, and C.4.d requires permittees to prepare and implement an enforcement response plan that includes escalating enforcement to resolve water quality issues. These tools are sufficient to ensure Permittees are appropriately attending to facilities.	
SCVURPPP-42 SMCWPPP-80	C.4.b.ii	The Provision should not specifically state how a Permittee must meet the requirement to identify new businesses. This language should be placed in the Fact Sheet. In addition, the current language implies using all sources.	Comment noted. Permittees are expected to be aware of the commercial and industrial businesses operating in their jurisdictions and the provision describes factors to consider when permittees are prioritizing inspections of those businesses. However, the provision does not specify how permittees must identify new businesses. Separately, we disagree that the Permit implies a Permittee must use all listed sources of information to develop and update their inspection prioritization. The language	None.

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Provision C.4. – Industrial and Commercial Site Controls**

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			states that “Permittees may use a variety of sources, including, but not limited to business license applications, tax records, and inspectors’ observations.” As such, those are examples for Permittees to consider—although the listed sources are typically used by Permittees.	
SCVURPPP-43 SMCWPPP-81 ACCWP-27 City of Oakland-12	C.4.b.ii	The addition of fueling areas will lead to additional businesses being added to Business Inspection Plans. This is an increase in requirements and new addition to the Permit with no rationale provided in the Fact Sheet for the need to include this category.	We have added information regarding fueling areas to the Fact Sheet section for C.4. Fueling areas were included because they are reasonably likely to contribute to stormwater runoff pollution and are a common focus area of stormwater program inspections, including other MS4 permits, as discussed in the Fact Sheet.	Added discussion of fueling areas to Fact Sheet.
SCVURPPP-44 SMCWPPP-82 ACCWP-28	C.4.b.ii.(b)(vii)	Most (if not all) Permittees have restaurants identified in their Business Inspection Plans. One of the reasons restaurants are included is because of the grease handling and storage (i.e., waste storage function). However, “other food service businesses” is too general and could lead to the incorporation of a significant number of other businesses that do not have a reasonable likelihood to be sources of pollutants, such as an ice cream shops, coffee shops that do not	This provision identifies facilities that are likely sources of pollutants to the storm drain. The inclusion of “other food service businesses” reflects the potential for discharges of pollutants associated with their activities, including waste storage and trash generation from disposable food packaging and utensils in areas where food is consumed by customers of the businesses on the premises. The language has been updated to note that only food service businesses that either prepare food or have onsite eating or drinking areas for customers are required to be included.	Added discussion of food service businesses and supermarkets to Fact Sheet.

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		<p>serve any food, places that only serve prepackaged food, etc. This would be overly burdensome to municipal inspection programs with no likely additional water quality benefit. It is unclear why supermarkets or large grocery stores with outdoor waste storage or cardboard compacting areas were added to the list. There is no supporting reason provided in the Fact Sheet for these additional business categories. Note that outdoor waste storage, handling, and disposal areas are already included in the type of functions that Permittees evaluate for including businesses in the Business Inspection Plans.</p>	<p>Waste from supermarkets and food service businesses is reasonably likely to contribute stormwater runoff pollution, and is a common focus area of stormwater program inspections, including other MS4 permits, as discussed in the Fact Sheet. This language was discussed with the Permittees, including the commenters, as it was developed. In those discussions, with permittees as the language was developed, we considered including a broader range of stores selling groceries (e.g., corner stores and bodegas), but limited the category to supermarkets and large grocery stores to reflect the elevated pollutant threat posed by those businesses, including potential discharges of trash, fluid milk products, and other wastes.</p>	
CCCWP-26	C.4.b.ii.(2)(f)	<p>Permittees maintain the list of commercial/ industrial facilities to be inspected, receive reports from the inspector, and verify that the inspector has had the appropriate training, which is reported on thoroughly in the annual reports. Therefore, creating a list of entities and their responsibilities as well as how they are managed is unnecessary reporting and adds</p>	<p>This information is necessary to ensure effective coordination when multiple entities are responsible for completing inspections and follow-up. This provision requires that, where a Permittee relies on multiple entities to perform business and commercial inspections, the Permittee submit a list of those entities, their responsibilities, and describe how the work is coordinated. Past Water Board inspections have found a lack of effective coordination when multiple</p>	None.

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		an additional administrative reporting burden.	entities are involved with business inspections.	
CCCWP-27	C.4.b.ii.(3)(b)	The recordkeeping required is excessive and will require a significant increase in resources to comply. It is unclear as to the meaning and intent of adding “mobile businesses for outdoor fueling.” Recordkeeping for these types of mobile businesses has separate challenges from stationary locations, as mobile businesses may operate out of residential addresses outside the purview of an individual jurisdiction, and should not be included in the provision.	We disagree. The required recordkeeping in this subprovision is the same as C.4.b.ii.(3)(b) in MRP 2, except for the addition of “...use of mobile businesses for outdoor fueling, washing, etc.” Permittees are using their existing tracking and reporting systems to meet this recordkeeping requirement. While mobile businesses that conduct fueling and washing would need to be added, that would be an incremental change. It is necessary because those businesses can be significant sources of pollutants (e.g., discharged fuel, potable water, and surfactants), and would be done consistent with the rest of the provision’s requirements (e.g., business license review). It may be assisted by coordination between permittees as part of the mobile cleaner outreach program that has been in place for more than 20 years.	None.
San Jose-21	C.4.b.ii.(3)(b)	Not every agency uses SIC codes to classify their industries, and some have transitioned away from the older 4-digit SIC code system and towards using the newer and more specific 6-digit NAICS codes. Both code systems allow permittees to identify businesses that can cause or contribute to	We agree and have updated the provision language as requested.	Allow submission of SIC or NAICS codes.

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		<p>pollution of stormwater runoff. While SIC Codes are still used by many industries and permittees, the SIC Code system has not been updated since 1987. NAICS was designed to and eventually will fully replace SIC. Allow permittees to use the standardized classification system that works best for them.</p>		
<p>CCCWP-28 SCVURPPP-45 SMCWPPP-83</p>	<p>C.4.b.iii</p>	<p>Reporting information on a Permittee’s internal procedures for issuing business licenses is outside the scope of stormwater management, as the information and the operations are often in a separate department than stormwater. This would be an unnecessary burden for stormwater programs and the purpose of this reporting activity is not clearly linked to the protection of stormwater. Additionally, not all Permittees issue business licenses.</p>	<p>We disagree. This provision imposes a one-time requirement for Permittees to report on which Permittee entities are responsible for reviewing and approving business licenses, or to provide a link to the Permittee’s website for business license applications. This should be straightforward, as Permittees’ stormwater program staff have been coordinating with those entities for many years as a source of information to determine sites to prioritize for inspection.</p> <p>Under SB 205, and separate from the Permit, Permittees with business license programs are required to have businesses confirm their SIC code and enrollment status under the Statewide Industrial Stormwater NPDES General Permit. The Water Board will use the information submitted under this provision to coordinate with Permittees and help prioritize its oversight of potentially</p>	<p>None.</p>

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			polluting facilities, including conducting additional outreach in jurisdictions without business license programs or where businesses are required to renew their business license less frequently.	
SCVURPPP-46 SMCWPPP-84	C.4.c.ii	<p>Emergency Response Plans are regulatory reports required for businesses by other regulations (e.g., hazardous materials regulations, state emergency preparedness, etc.). Stormwater inspectors inspect businesses for compliance with local stormwater ordinances, which require appropriate BMPs, but do not require emergency response plans. These plans should be reviewed by the appropriate agencies requiring their completion (e.g., fire departments, CUPA) to avoid inconsistent and duplicative requirements.</p> <p>Delete lack of emergency response plans from list of examples.</p>	We disagree with the proposed deletion. C.4.c.ii.(2) includes “lack of emergency response plans” as an example of a scenario that could lead to a discharge of pollutants. Permittees are not required to review emergency response plans, although for a number of permittees, the inspector doing a stormwater inspection may also be a CUPA or fire department inspector who is qualified to do the review. Stormwater inspectors may determine during an inspection that there is a potential for discharges from a scenario such as an uncontrolled spills, in part because the business does not have an emergency response plan to manage the spill. Under this provision, the Permittees' stormwater inspectors have the flexibility to determine when the lack of an emergency response plan could contribute to a potential discharge.	None.
SCVURPPP-47 SMCWPPP-85	C.4.c.ii.(3)	Revise this to be consistent with the MRP 2 text: "Corrective actions can be temporary and more time can be allowed for permanent corrective actions." By breaking up	We concur with the intent and have revised the language to reflect this.	C.4.c.ii.(3) is revised, in part, to read: "Corrective actions can be

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		this sentence it implies any corrective action can be temporary. While the intent is to allow a facility to implement a temporary corrective action while a permanent corrective action is being implemented over a longer time schedule.		temporary when appropriate, in which case more time can be allowed for permanent corrective actions."
CCCWP-29	C.4.d.ii.(1)(b)	Mobile businesses are already part of Provision C.5, and looking for discharges is already part of the inspection process. The observations for evidence of these discharges is already an established part of the Inspection Plan and this additional specificity is not necessary.	See response to CCCWP-27. Mobile businesses can be a significant source of pollutants, and due to the inherent difficulties in inspecting mobile businesses, observations should be conducted when they are operating as part of the activities of a facility already included in the Inspection Plan. As the commenter notes, making observations for such discharges is already included as part of their Inspection Plan, hence no additional effort would be required.	None.
ACCWP-29 CCCWP-31 SCVURPPP-52 SMCWPPP-90 City of Oakland-13	C.4.d.iii.(1)(h)	The information required for the list of facilities that may need coverage under the Industrial General Permit, but have not filed for coverage, has increased. Reporting the date the facility was first identified may be difficult since this information was not required to be tracked in pervious Permits. It could be a significant amount of resources to review past inspection reports of the previous	Due to this information now only being made available upon Water Board request rather than in each Annual Report, the intent of this requirement is to help the Water Board prioritize its oversight of new facilities identified by Permittees. However, we have clarified that the intent is for this information only to be recorded for new facilities added to the inventory during this Permit term, and have renumbered the subprovision as requested.	Revised language to clarify requirement to collect information for new facilities and renumbered subprovision.

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		10 years to identify when a facility was first reported to the Water Board. Water Board staff should have the dates facilities were previously reported since they have all of the previous Annual Reports from Permittees. In addition, since this list is available upon request it should not be included under the Annual Report requirements. This should be identified as item C.4.d.iii.(2).		

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F5C - 2-2	C.5	<p>The first paragraph of C.5 appears to exempt discharges associated with homeless populations from C.5's provisions for detecting and controlling illicit discharges, because those discharges are in some sense "otherwise controlled" by new C.17. However, C.17 requires no actual control – only various maps and reports, some due in 2023 or 2025. Why not reevaluate requirements after a year or two? Under this draft, it appears that the Board could not threaten action where camps pave shorelines with trash and feces, draw rats, and wash soap, gasoline, and other pollutants into streams.</p>	<p>Comment noted. This paragraph indicates that the provision applies when illicit discharges are “not otherwise controlled” under other provisions. It does not exempt illicit discharges related to those provisions. Furthermore, C.17 does not only require reports. C.17.a.ii.(3) requires the implementation of best management practices to control discharges associated with unsheltered homelessness, and C.17.a.ii.(4) requires the Permittees to update their implementation practices with lessons learned over the permit term.</p>	None.
ACCWP-32	C.5	<p>“Discharges Associated with Unsheltered Homeless Populations” could be interpreted as criminalizing unsheltered persons. All text pertaining to C.17 should be removed from this provision.</p>	<p>This cited language in the first paragraph of C.5, and associated references to C.4 and C.6, have been included to recognize other parts of the Permit that are significantly related to C.5 and to facilitate coordinated implementation. As noted elsewhere in this Response to Comments, non-stormwater discharges associated with unsheltered homelessness, such as trash and sewage, are illicit non-stormwater discharges. However, the inclusion of C.17 is intended to give permittees an approach to address such</p>	None.

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			discharges that is more flexible than that framed in C.5, particularly by focusing on managing those issues while permittees seek longer-term solutions to homelessness that are beyond the Permit’s scope. The intent of C.17 is to ensure that C.5 does not result in the <i>de facto</i> criminalization of unsheltered homelessness, while still protecting water quality.	
ACCWP-34 CCCWP-36 SMCWPPP-107 and 118 SMCWPPP-106 SCVURPPP-68 and 69 City of Oakland-16 San Jose-24	C.5 Fact Sheet and C.5.e.ii	<p>C.5.e includes new text: "This Permit shifts the enforcement approach focus from developing an inventory of mobile businesses and direct observation of mobile business activities to reiterating that the entity hiring the mobile business and the mobile business themselves are responsible for any polluted discharge from the business or property."</p> <p>This statement is not consistent with the increase in requirements related to updating mobile business inventories and inspections.</p> <p>Remove additional requirements related to the inventory and inspections to be consistent with</p>	As stated in the Fact Sheet, the Water Board is aware of inherent difficulties in inspecting mobile businesses. Therefore, a key component of Permittees’ approach to regulating them will be to require minimum BMPs for operation of those businesses where these are not already in place. To establish these BMPs, Permittees must have accurate inventories. Similarly, inspections will provide information on which BMPs are needed for particular mobile business types, and where more outreach is necessary.	None.

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		this statement of the Board's intent.		
SCVURPPP-56 SMCWPPP-94 CCCWP-33	C.5.a.ii.(4)	<p>Generally, Permittees want discretion to issue enforcement actions to any or all parties involved with mobile business activities.</p> <p>However, Permittees must discuss with legal counsel. There may be limitations on authority to consider. Suggest revising wording to provide more flexibility by replacing "and" with "or." A timeline for Permittees to amend ordinances, as needed, should be incorporated into the permit implementation.</p>	<p>This subprovision requires Permittees to have adequate legal authority to hold all parties associated with discharges from mobile businesses responsible for stormwater pollution associated with their operations. The Permittees retain the discretion to complete appropriate progressive enforcement. This authority is necessary to ensure permittees can successfully control illicit discharges and implement appropriate enforcement actions depending on the specific scenario. The commenters did not identify a suggested timeline for ordinance amendments or note Permittees who do not currently have adequate legal authority to implement this subprovision. Permittees have certified for more than 20 years that they have adequate legal authority to control non-stormwater discharges in their jurisdictions, and regularly complete enforcement actions against businesses and property owners. As such, Permittees currently should have sufficient authority to implement this subprovision.</p>	None.
SCVURPPP-57 SMCWPPP-95	C.5.b.ii	<p>Emergency response plans are regulatory reports required for businesses by other regulations (e.g., hazardous materials regulations, state emergency</p>	See response to SCVURPPP-46.	None.

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		<p>preparedness). Stormwater inspectors inspect businesses for compliance with local stormwater ordinances, which require appropriate BMPs, but do not require emergency response plans. These plans should be reviewed by the appropriate agencies requiring their completion (e.g., fire departments, CUPA) to avoid inconsistent and duplicative requirements.</p> <p>Delete lack of emergency response plans from list of examples.</p>		
<p>SMCWPPP-96 SCVURPPP-58</p>	<p>C.5.b.ii</p>	<p>Keep MRP 2 text: "Corrective actions can be temporary, and more time can be allowed for permanent corrective actions." By breaking up this sentence it implies any corrective action can be temporary. While the intent is to allow a facility to implement a temporary corrective action while a permanent corrective action is being implemented over a longer time schedule.</p>	<p>We concur with the intent and have changed the language to reflect this.</p>	<p>C.5.b.ii.(3) is revised, in part, to read: "Corrective actions can be temporary when appropriate, in which case more time can be allowed for permanent corrective actions."</p>
<p>SCVURPPP-59</p>	<p>C.5.c.ii</p>	<p>The revisions [from MRP 2] make the Permittee's website the only</p>	<p>We agree that information may be provided via a range of means. At a minimum,</p>	<p>The language "publicized to</p>

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SMCWPPP-97		<p>place the central contact phone number needs to be publicized. Permittees may also publicize the phone number on outreach material and Countywide Program websites.</p> <p>Note the reporting requirements in C.5.c.iii.(3) still contain language asking for a discussion of how the central contact point is being "publicized to the Permittees' staff and the public" even though this wording was deleted from this implementation section.</p> <p>Revise as follows (revisions in italics): Each Permittee shall publicize the phone number on its website, and, if used, a web reporting address or link to a web-based reporting application, <i>to internal Permittee's staff and the public. The Permittee's website shall be one of the places the central contact point is publicized.</i> The contact information on the permittee's website shall be kept up-to-date, and updated, <i>as needed</i>, at least annually. This central contact point</p>	<p>Permittees must publicize the phone number or other contact information on its website, so that the public can easily find where to report complaints. Permittees are free to publicize their phone number or other contact information through other outreach materials or websites as well, but it is unnecessary and duplicative to include language that "[t]he Permittee's website shall be one of the places the central contact point is publicized."</p> <p>We returned the MRP 2 language "publicized to the Permittees' staff and the public" to the C.5.c.ii Implementation Level and noted that the contact information on Permittees' websites only needs to be updated annually when changed.</p>	<p>the Permittees' staff and the public" has been added back to the C.5.c.ii Implementation Level, and annual updates to the contact information on the Permittees' websites are only required when that information changes.</p>

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		shall be readily searchable and accessible on the Permittee's website.		
SCVURPPP-60 SMCWPPP-98 CCCWP-34	C.5.c.ii.(6)	As compared to MRP 2, MRP 3 adds a time frame for illicit discharges to be investigated within 3 business days from the date the complaint was received by the Permittee. There may be instances when it is reasonable for the start of an investigation to take longer than 3 business days. In these few cases there should be an option to document a rationale.	We agree and have updated the language to allow more time with a documented rationale. This requirement was added to reflect the Implementation Level from the statewide Small MS4 NPDES General Permit, which also allows for an explanation to be provided when additional time is needed.	C.5.c.ii.(6) language updated to state: "If additional time is required, the Permittee shall document the rationale for the delay."
SCVURPPP-61 SMCWPPP-99	C.5.d.ii.(2)(a)	The implementation level specifies the records are for tracking "water quality spills, dumping, and complaints that might discharge into the MS4." Therefore, this clarification of "Date and time investigation of spill or discharge started" is not needed in the tracking system information.	We disagree that the information is not needed. It is needed to demonstrate that Permittees timely responded to spills, dumping, and complaints, and the cited language has been included to clearly explain what information is required.	None.
SMCWPPP-100 SCVURPPP-62 ACCWP-33	C.5.d.ii	The stated purpose of this provision is to control illicit discharges. Illegal dumping is not necessarily an illicit discharge. For example, illegal dumping of mattresses, furniture, etc. would	We agree with the commenters that not all instances of dumping may lead to a discharge to the MS4. However, this does not require a change to the provision language. The provision does not require that such instances be tracked. As noted by	None.

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City of Oakland-15		<p>not lead to a discharge to receiving water. This type of illegal dumping is typically handled and tracked by other programs and departments and should not be tracked in the illicit discharge tracking system. This is duplicative of requirements in C.10 related to trash hot spot cleanups. If illegal dumping is required to be tracked in the illicit discharge tracking system it would be a significant amount of work for Permittees to coordinate with other departments and update their electronic tracking system. The implementation level specifies the records are for tracking "water quality spills, dumping, and complaints that might discharge into the MS4". Therefore, this additional tracking requirement is outside of the scope of this Provision.</p> <p>Delete added language.</p>	<p>the commenters, the tracking requirement applies to "water quality spills, dumping, and complaints that might discharge into the MS4." Instances of dumping that do not have the potential to discharge to the MS4 are not required to be tracked.</p>	
San Jose-22	C.5.d.ii.(2)(b)	<p>'Illicit discharge' and 'illegal dumping' are two distinct and non-interchangeable terms. Water Board staff updated C.5 language to reflect this, but missed one instance.</p>	<p>We agree that the terms are different, although they refer to categories that may overlap. Please see response, above, to: SMCWPPP-100 SCVURPPP-62 ACCWP-33</p>	None.

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		Update language as follows: "Date and time response to spill or discharge complaint started."	City of Oakland-15	
SCVURPPP-63 SMCWPPP-101	C.5.d.ii.(2)	The requirement should be to only track other agencies if they oversee the resolution. Revise as follows: (c) Agency, department, or other entities responding to the complaint or discharge if Permittee does not otherwise track resolution of discharge in their jurisdiction;	We disagree that an edit is needed. The cited requirement is to indicate which agency(ies) or outside entity(ies) has(have) been directed to respond. This information will help track effective coordination between multiple agencies or entities in responding to a complaint or discharge.	None.
SCVURPPP-64 SMCWPPP-102	C.5.d.ii.(2)(e)	It would require a significant amount of effort to revise electronic data tracking systems to identify the specific storm drain or specific receiving water instead of a yes/no response if it entered a storm drain or receiving water. Revise to only require a yes/no response.	We have updated the language to address the concern about level of effort. In general, Permittees should be aware of to where discharges in their jurisdictions may discharge. Providing location information for spills and discharges helps to maintain a record of historical spills and track where additional cleanup activities may be required. We have updated the language to allow reporting of only the location of the storm drain using addresses or streets, if they do not have a means of readily identifying the storm drain and receiving water.	Updated language accordingly.
SCVURPPP-65	C.5.d.ii.(3)	This Provision addresses "illicit discharges not otherwise controlled under C.4, C.6, and	This subprovision gives Permittees flexibility to address illicit discharges associated with unsheltered homeless populations by noting	None.

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SMCWPPP-103 CCCWP-35		<p>C.17 – Discharges Associated with Unsheltered Homeless Populations." Therefore, tracking discharges associated with unsheltered populations should not be included in C.5.</p> <p>Furthermore, illicit discharges from unsheltered homeless populations are of multiple types, and mitigating discharges associated with unsheltered homeless populations is fundamentally a health and human services issue. It is inappropriate and burdensome to consider illicit discharges from unsheltered homeless populations as subject to municipal controls in the same manner as other categories of illicit discharges identified in C.5.a. In addition, Permittees are already working with taskforces and other agencies to address the root causes of homelessness that goes beyond the scope of C.5.d, making the permit language redundant and unnecessary. Recommendation: Remove the requirements and address these</p>	<p>that responses to those discharges shall be coordinated with the Permittees' efforts under C.10 and C.17. Permittees are not required to separately record such discharges in their tracking system that are being addressed through broader implementation of C.17 requirements, but they may choose to do so.</p>	

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		matters per the comments on C.17.		
SCVURPPP-66 SMCWPPP-104	c.5.d.iii	The new requirement to provide copies of phone trees and contact lists in the 2026 Annual Report is listed under the Annual Report. To avoid confusion, renumber this section to separate the Annual Reporting requirements from the 2026 reporting.	We agree and have moved the reporting requirement to the 2026 Annual Report in C.5.c.iii.(4).	Moved requirement to C.5.c.iii.(4).
SMCWPPP-105 SCVURPPP-67	C.5.e.ii	Graffiti removal mobile businesses that utilize power washing are already included in the power washing category. Delete graffiti removal from list of mobile business categories.	We disagree that an edit is needed. While we agree that graffiti removal can be conducted via power washing, which is already a listed category, removal may also be conducted using other methods, which could still contribute pollutants to stormwater or result in non-stormwater discharges to the MS4.	None.
SCVURPPP-70 and 71 SMCWPPP-108 and 109	C.5.e.iii	The inspection reporting requirements for the 2026 Annual Report are duplicative of new Annual Reporting requirements to report number of inspections and summary of enforcement actions taken. These requirements should be deleted from the 2026 Annual Report or the Annual Report requirements in C.5.e.iii.(2) should be deleted.	We agree that the annual inspection reporting requirements are sufficient, and the 2026 Annual Report does not need to summarize the cumulative inspection and enforcement actions taken during the Permit term.	Deleted cumulative reporting requirements in C.5.e.iii.(1).(c) and (d).
SCVURPPP-74	C.5.f	The added text of making the MS4 map available to the public "upon request" is in conflict with the	The Permit differentiates between current MS4 maps that are to be made publicly available and future updates to MS4 Maps	Revised to clarify that current MS4

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<p>SCVURPPP-78 SMCWPPP-110 SMCWPPP-112 SMCWPPP-116</p>		<p>requirements in C.5.f.ii.(1) to make MS4 maps publicly available and reporting requirement C.5.f.iii.(1) to discuss how Permittees make MS4 maps available to the public and how they publicize the availability of the MS4 maps. Separate the requirement to "make MS4 maps available to the general public and publicize availability" from the requirement to "update storm drain system maps with more detailed information."</p>	<p>for which Permittees must determine missing information and develop a plan and schedule to update. These are already described separately in C.5.f.ii.(1) Current MS4 Maps and C.5.f.ii.(2) Updates to MS4 maps. The referenced text from C.5.f.i Task Description has been revised to clarify that only current MS4 maps are to be made available to the public.</p>	<p>maps are to be made available to the public.</p>
<p>ACCWP-35 SCVURPPP-74 to 76 SMCWPPP-111 SMCWPPP-114 SMCWPPP-116 to 117 City of Oakland-17</p>	<p>C.5.f</p>	<p>It is unclear in this Provision, given the new requirements, if there are different MS4 maps required for different purposes. The level of detail needed for an MS4 map is different depending on the target audience. Not all Permittees use the Oakland Museum maps as part of their mapping system. There should be a distinction between the types of maps that must be made publicly available and the maps with more component information that are now being required. The general public does not need to know (nor most likely would be interested in) the specification, materials of construction, and condition. From</p>	<p>The requirement to update MS4 maps is distinct from the requirement to make current MS4 maps available to the public, as discussed in response to SCVURPPP-74. Permittees are not required to use the Oakland Museum maps, but they are included as one of multiple resources that Permittees may consider in developing a plan to update their MS4 maps. The Permit does not require Permittees to collect new information on each characteristic and condition of their storm sewer system, but only to consider potential opportunities to identify those characteristics when developing their plan to update MS4 maps. The Permittees also have the opportunity to discuss in their plan what updated information will be made available to the public and how it will be provided. The</p>	<p>Revised C.5.f.ii.(2) for consistency with C.5.f.i.</p>

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		a safety and security perspective, there may be a concern with municipalities making their infrastructure details available to the general public.	language in C.5.f.ii.(2) has been updated to reflect this and remain consistent with the C.5.f.i. Task Description.	
ACCWP-36 to 37 CCCWP-37 SCVURPPP-73 SCVURPPP-77 SCVURPPP-79 SMCWPPP-113 SMCWPPP-115 San Jose-23	C.5.f.ii.(2)	The requirement to have a map/database of storm sewer system “component” locations, size, specifications, materials and condition is beyond what is required by 40 CFR 122.26(d)(1)(iii)(B)(1) and 40 CFR 122.26(d)(1)(iii)(B)(5). Requiring condition assessments would place considerable strain on already limited budgets to implement a new program which would be unreasonably resource intensive and would not result in any demonstrable water quality improvements. If Water Board staff are interested in confirming MS4s have up to date maps or databases of their systems for internal use the requirement can be revised to submit a description of MS4 components mapped and/or available in information systems, or by submitting annual revisions or verifying that no modifications to the system occurred. The descriptions may	See response to ACCWP-35. Permittees are given the flexibility to develop a plan and schedule to update their MS4 maps and evaluate the potential information that can be included. The requirement to update MS4 maps to ensure the information provided is accurate is consistent with other MS4 permits as discussed in the Fact Sheet.	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.5. – Illicit Discharge Detection and Elimination**

Comment No.	Provision	Comment	Response	Proposed Revision
		include what size and types of components are mapped and what information is available. Reduce the update requirements to eliminate the inclusion of materials of construction and condition, or remove this provision so that Permittees can prioritize resources for efforts that will result in improvements to water quality with the necessary green stormwater infrastructure planning and implementation which represent greater improvements to the storm sewer system than map updates.		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.6. – Construction Site Control**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-124 SCVURPPP-85	C.6 Fact Sheet	Keep original text: "This section requires all Permittees to require all construction sites to have year-round seasonally appropriate effective BMPs in the following six categories." It is misleading to add "now" to this Provision since the requirements were in previous permits. Also recommend not adding "or" since the intent is sites use BMPs all year long. Different BMPs may be used throughout the year (i.e., seasonally appropriate).	We agree and have updated the Fact Sheet language as requested.	Updated Fact Sheet language.
SMCWPPP-125 SCVURPPP-86	C.6 Fact Sheet	Combine two sentences to correct punctuation: "Because sites' terrain, soil type, soil disturbance, and proximity to waterbodies differ, it would be unduly prescriptive and inappropriate to require all sites to implement a specific set of BMPs."	We agree and have updated the Fact Sheet language as requested.	Updated Fact Sheet language.
SCVURPPP-81 SMCWPPP-120	C.6.b.ii	Keep original text: "Corrective actions can be temporary, and more time can be allowed for permanent corrective actions." By breaking up this sentence it implies any corrective action can be temporary. While the intent is to allow a facility to implement a temporary corrective action while a permanent corrective action is	We agree and have revised the language to reflect the intent of the requested change.	Updated language to "Corrective actions can be temporary, in which case more time can be allowed for permanent corrective actions"

**Response to Comments on September 10, 2021, Tentative Order
Provision C.6. – Construction Site Control**

Comment No.	Provision	Comment	Response	Proposed Revision
		being implemented over a longer time schedule.		
SMCWPPP-119 SCVURPPP-80	C.6.b.ii	<p>Emergency response plans are regulatory reports required for businesses by other regulations (e.g., hazardous materials regulations, state emergency preparedness). Stormwater inspectors inspect businesses for compliance with local stormwater ordinances, which require appropriate BMPs, but do not require emergency response plans. These plans should be reviewed by the appropriate agencies requiring their completion (e.g., fire departments, CUPA) to avoid inconsistent and duplicative requirements.</p> <p>Delete lack of emergency response plans from list of examples.</p>	See response to SCVURPPP-46.	None.
SCVURPPP-82 SMCWPPP-121	C.6.e.ii	There is a new electronic data tracking requirement to record the department, agency, or other entity performing the inspection. This is an increase in reporting requirements.	When Permittees implement inspections between multiple entities, it is important to ensure effective coordination. These reporting requirements allow the Water Board staff and interested public to understand how the inspections are being conducted and what entities are responsible for any enforcement follow-up.	None.

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Provision C.6. – Construction Site Control**

Comment No.	Provision	Comment	Response	Proposed Revision
ACCWP-38	C.6.e.iii.(4)	The reporting required for inspections, active sites, enforcement actions, and illicit discharges is onerous. This information should be kept by Permittees and available on request by Water Board staff. The reporting requirements should be deleted.	We disagree that the requirement to report summary/"roll-up" numbers is onerous, and note the Permittees are reporting this information under the previous Permit. The requirement to summarize each year information like the number of sites requiring inspection, total number of inspections conducted, and number of enforcement actions taken is necessary to allow the Water Board and the interested public to evaluate how Permittees are implementing the Permit requirements to control discharges from construction sites, and are consistent with the previous permit. The commenter has not suggested alternatives for the Water Board to determine compliance with this provision.	None.
SCVURPPP-83 SMCWPPP-122	C.6.e.iii	"Evidence of illicit discharges" is a clearer statement of why it is suspected that there was an illicit discharge than "suspected" illicit discharges. An inspector may suspect a discharge occurred, but without evidence inspectors will not issue enforcement. Recommend not changing wording.	In response, we revised the language to refer to "actual and potential" for consistency with the rest of the Permit. The Permit uses the term "potential discharges," as defined in the Glossary and developed in coordination with the Permittees, to describe the types of suspected discharges to evaluate during inspections and implementation of the Enforcement Response Plan. Potential discharges include those supported by evidence (e.g., observed, determined through review of documentation, or through discussion with facility staff).	Updated language accordingly.

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Provision C.6. – Construction Site Control**

Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP-84 SMCWPPP-123	C.6.f.iii	There is an increase in [Staff Training] reporting requirements to report the number of municipal and non-municipal inspectors separately. Consultants that perform these inspections do so on behalf of the municipality. It is unclear why there needs to be a distinction.	We agree that it is not necessary to report municipal and non-municipal inspectors separately, but we want to ensure Permittees report the total number of inspectors involved with C.6 implementation, including both municipal and non-municipal staff. We have updated the language to reflect this.	Updated language accordingly.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.7. – Public Information and Outreach**

Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP-87 SMCWPPP-126 SMCWPPP-127 SMCWPPP-128 SMCWPPP-129 SMCWPPP-130 SMCWPPP-131	C.7.a to C.7.g	Reporting requirements consolidated in new Tracking and Reporting subprovision.	Comment noted.	None.
ACCWP-39 SMCWPPP-132 SMCWPPP-133 SMCWPPP-134	C.7.g	There is an increase in onerous reporting requirements. Summarizing program activities should only be required once during the Permit term with the 2027 Annual Report	We disagree. As compared to the previous permit, public information and outreach reporting has been simplified and modestly reduced. Permittees are no longer required to prepare or submit a comprehensive analysis of outreach activities; while they have to maintain a list of outreach activities and associated information under C.7.g.i that is otherwise roughly equivalent to the previous permit, that information no longer has to be reported annually (instead, it must be made available upon request, as noted in C.7.g.ii). The list includes an effectiveness evaluation under C.7.g.iii.(3), as did the previous permit. However, the effectiveness evaluation is now required only once during the Permit term, in 2027, rather than	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.7. – Public Information and Outreach**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>annually, as under the previous permit. And, the Annual Report now only requires a summary table of the types of activities implemented with a brief description, as noted in C.7.g.iii.(1).</p>	
Baykeeper-14	C.7	<p>C.7 should be revised to more clearly incentivize creek/shore cleanups so Permittees will continue to fund cleanups, even in the absence of trash load reduction credits in C.10.f.i. Baykeeper recognizes the value of creek and shoreline cleanups to connect the public with the natural environment and we support Permittees continuing their creek and shoreline cleanup efforts. C.7.c requirements for public outreach and citizen involvement events already includes cleanups as a type of public outreach event. Additionally, C.7.d requirements for watershed stewardship collaboration requires Permittees to collaborate with other organizations to encourage and support community watershed stewardship activities, which can also include creek/shore cleanups. The Water Board should revise C.7 to more explicitly incentivize creek/shore cleanups to ensure</p>	<p>We agree that creek and shoreline cleanups can help foster stewardship and connect the public to the natural environment. The Permit supports their continuation. As noted by the commenter, creek and shoreline cleanups are options to meet the Permittees' public outreach requirements under C.7.c and C.7.d. The absence of an explicit requirement for all Permittees to complete such cleanups allows flexibility based on local priorities and resources.</p>	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.7. – Public Information and Outreach**

Comment No.	Provision	Comment	Response	Proposed Revision
		these activities will continue in the absence of the trash load reduction credit in C.10.f.i.		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
Baykeeper-11	C.8	<p>1) C.8’s Monitoring Program Fails to Monitor Whether Stormwater Discharges Comply with MRP Conditions, in Violation of the CWA’s Minimum Monitoring Requirements.</p> <p>It is well-established that every NPDES permit must include discharge monitoring sufficient to determine compliance with all permit limits—in this case, Draft MRP 3’s requirement to comply with all applicable receiving water limitations. As recently explained by the Ninth Circuit Court of Appeals:</p> <p>[T]he [CWA] requires every NPDES permittee to monitor its discharges into the navigable waters of the United States in a manner sufficient to determine whether it is in compliance with the relevant NPDES permit. 33 USC § 1342(a)(2); 40 CFR § 122.44(i)(1) (“[E]ach NPDES permit shall include conditions meeting the following . . . monitoring requirements . . . to</p>	Please see Master Response Identifier C.8-1.	Please see Master Response Identifier C.8-1.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>assure compliance with permit limitations.”). That is, an NPDES permit is unlawful if a permittee is not required to effectively monitor its permit compliance.</p> <p>Natural Res. Def. Council v. Cnty of L.A., 725 F.3d 1194, 1207 (9th Cir. 2013). The monitoring program in C.8 fails to comply with this core requirement. Neither the Water Board, the Permittees, nor the public, can use the monitoring in C.8 to determine whether a Permittee is in compliance with the permit terms or the CWA.</p> <p>First, C.8 does not mandate wet weather monitoring – Permittees can select dry weather monitoring instead. Thus, the permit regulating urban runoff does not require stormwater runoff sampling. This failure is analogous to the COVID testing policy under the Trump Administration: it’s not there if we don’t test for it. An MS4 permit must assess whether stormwater discharges meet permit terms, and it defies logic that Draft MRP 3 continues to fail</p>		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>to require outfall monitoring for all parameters.</p> <p>Second, C.8 does not require outfall sampling from the Permittees' MS4 systems.</p> <p>The Fact Sheet provides a series of rationales for the failure to include outfall monitoring, but does not explain how regional monitoring (or any other monitoring included in Draft MRP 3) can be used to evaluate compliance by any Permittee. In fact, both Water Board staff and Permittees have confirmed that current monitoring—continued in C.8—is inadequate to evaluate compliance.</p> <p>The State Board has confirmed the necessity of end-of-pipe sampling in MS4 permits—particularly where, as here, safe harbors are utilized. As noted by the State Board in Orders WQ 2015-0075 and WQ 2020-0038, outfall monitoring is an appropriate way to determine compliance with water quality standards in MS4 permits in conjunction with</p>		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>receiving water monitoring:</p> <p>The State Water Board said outfall monitoring is an appropriate way to determine compliance: “Wet weather receiving water monitoring is fundamental to assessing the effects of storm water discharges on water quality and determining the trends in water quality as Permittees implement control measures. Compliance may be determined at the outfall – for example, where a permittee determines that the discharge does not exceed an applicable WQBEL or receiving water limitation – but outfall monitoring alone cannot provide broader data related to trends in storm water discharge impacts on the receiving water. Further, because Permittees are responsible for impacts to the receiving waters resulting from their MS4 discharges, Permittees may be required to participate in monitoring not only in receiving waters within their jurisdiction, but in monitoring all receiving waters that their discharges impact.” State Board Order WQ 2015-0075 at 65-</p>		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>66.</p> <p>2) Wet Weather Outfall Monitoring is Feasible and Appropriate</p> <p>Region 2 is the only urban coastal region in the state that does not currently require wet weather outfall discharge monitoring by Phase 1 municipal stormwater permittees. Other regions, including Regions 9 (San Diego), 8 (Santa Ana), and 4 (Los Angeles) require such monitoring from Phase 1 municipal stormwater permittees to facilitate assessment of municipal runoff management programs in effectively prohibiting non-storm water discharges into the MS4 and reducing pollutants in stormwater discharges from their MS4s. Bay Area Permittees have avoided the level of scrutiny and oversight afforded other municipalities in the state and Baykeeper continues to be disappointed that Draft MRP 3 does not meet this minimal level of consistency with other Phase 1 MS4 permits.</p>		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>For example, Region 4 (Los Angeles), requires stormwater monitoring from at least one major outfall per HUC 12 subwatershed. The Region 9 (San Diego) permit requires dry and wet weather sampling from outfalls and permittees must sample from at least five wet weather MS4 outfalls within designated watershed management areas. Since at least 2010, Region 8's (Santa Ana) Riverside County Phase 1 MS4 Permit has required monitoring of flow and a range of pollutants to enable estimation of pollutant loading from "mass emissions" stations throughout Riverside County. The recent LA County MS4 Permit requires representative end-of-pipe sampling from each municipal permittee, as well as receiving water and downstream mass emissions sampling. Clearly sampling sufficient to monitoring permittee compliance (as required by the CWA) is feasible.</p> <p>3) Baykeeper's Monitoring During MRP 2 Proves Robust Monitoring is Affordable</p>		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>During MRP 2, Baykeeper collected stormwater samples at MS4 outfalls and receiving waters in San Jose, Sunnyvale, and Mountain View. Between February and March 2014, Baykeeper collected end of pipe stormwater samples and receiving water samples at two locations (one at Coyote Creek and one at the Guadalupe River), on two sampling dates. Laboratory analyses for total coliform, fecal coliform, and enterococci revealed exceedances for most parameters on both days at least one order of magnitude greater than the Bacteria Water Quality Objectives in Basin Plan Table 3-1. This sampling program took 53 staff hours (split between two staff) and approximately \$4,000 in hard costs for laboratory supplies, laboratory analyses, and travel expenses. Between November 2017 and February 2019, Baykeeper collected end of pipe stormwater samples at six locations and receiving water samples at nine locations (five at Stevens</p>		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>Creek, one at Calabazas Creek, and three at Sunnyvale East Channel), on nine sampling dates over two reporting years. Laboratory analyses for total coliform, fecal coliform, enterococci, and E. Coli also revealed exceedances for most parameters at least one order of magnitude greater than the Bacteria Water Quality Objectives in Basin Plan Table 3-1 and the Bacteria Objectives in the State Board’s Bacteria Provisions. This sampling program took 350 staff hours (split between two staff) and approximately \$40,600 in hard costs for laboratory supplies, laboratory analyses, and travel expenses. End-of-pipe sampling by Permittees will have significant economies over Baykeeper’s program and represents a small percentage of overall compliance costs. Again, representative sampling is cost effective and feasible.</p>		

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Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
Baykeeper-15a	C.8	<p>Draft MRP 3 Must Be Revised to Include Creek Status Monitoring and Bacteria Monitoring in C.8's Monitoring Requirements</p> <p>Baykeeper objects to the removal of creek status monitoring and bacteria monitoring, which were components of MRP 2's monitoring requirements. The Fact Sheet at A-181 states "this Permit has replaced the Creek Status Monitoring [...] with LID Monitoring which has been identified as a more useful program at this point in time, and the Water Board will consider changes to LID Monitoring in the subsequent permit to further increase its utility." While Baykeeper approves of the addition of LID monitoring in Draft MRP 3, those monitoring requirements do not take the place of creek or bacteria monitoring. Although the creek status monitoring and bacteria monitoring in MRP 2 had its own flaws (i.e., limiting monitoring to dry weather), Baykeeper expected the Water Board would improve these monitoring programs in Draft MRP 3 rather than remove them all</p>	<p>Creek Status Monitoring was removed because it appears from the Permittees' data and reporting that it is no longer generating additional useful information (i.e., monitoring results were remaining relatively constant), such that continuation of Creek Status Monitoring would have limited utility with respect to the generation of new information that could inform management actions to improve water quality. On the other hand, we identified (with the support of the Permittees) that LID Monitoring presently represents a greater information need and can more effectively inform management actions to improve water quality, and so we replaced Creek Status Monitoring with LID Monitoring.</p> <p>We also added requirements for bacteria and receiving water monitoring. Please see Master Response Identifiers C.8 - 1 and C.14.a – 1.</p>	See Master Response Identifiers C.8 -1 and C.14.a – 1.

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Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>together.</p> <p>The only meaningful bacteria data collected during MRP 2 were collected by Baykeeper, and consistently showed exceedances of bacteria water quality standards in South Bay creeks. Based on these data, which have been shared with the Water Board, Baykeeper expected more robust monitoring in Bay Area creeks for bacteria. The limited number of creeks monitored by Baykeeper during MRP 2 should not be read to indicate there are no bacteria exceedances in other creeks not monitored. Rather, it is simply a reflection of Baykeeper’s limited resources.</p> <p>Instead of requiring robust monitoring, MRP 3 eliminates the monitoring provisions for bacteria and creeks altogether. Baykeeper recommends adding to Draft MRP 3 the creek status monitoring and bacteria monitoring from C.8 in MRP 2, and revising these requirements to include wet weather monitoring.</p>		

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Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-15	C.8	We do not believe that all of the requirements in C.8 will significantly improve the data and decision making for improving water quality.	We disagree. Each monitoring requirement has been carefully designed to collect needed data to determine compliance, assess progress and effectiveness of stormwater controls, and inform decision-making. Each subprovision has specified management questions, that in our best professional judgment, will be answered by the requirements included in those subprovisions (for example, see the response to the following combined comment, regarding how the Trash Monitoring Management/Monitoring Questions will be answered: ACCWP-a8 SMCWPPP-14,15,165,167,171 San Jose-27 SCVURPPP-108,110).subprovisions. The Water Board believes in and is requiring strategic monitoring to obtain useful and representative data and has made a concerted effort to dispense with any unnecessary monitoring that is not required under the Clean Water Act.	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
<p>ACCWP-a6,a7 CCCWP- 38,41 SCVURPPP- 5,97 SMCWPPP- 18,151 Solano-5</p>	<p>C.8</p>	<p>1) The monitoring requirements in the Tentative Order, collectively, will be significantly more expensive to implement than the monitoring requirements in MRP 2. The pandemic's fiscal impacts on Permittees remain. Therefore, revise the Tentative Order, as described in more detail below and in Attachment 2, to allow for more cost saving measures and to reduce the number of required sampling events so that the annual monitoring costs under MRP 3 are similar to annual monitoring costs in MRP 2 and can reasonably and safely be completed. The Permittees thought the Water Board's goal was to keep MRP 3 monitoring cost-neutral compared to MRP 2.</p> <p>2) The Fact Sheet ignores cost increases between MRP 2 and the MRP 3 Tentative Order, stating that many of the new provisions are "already required or already being completed." The Fact Sheet does not discuss the economic impacts of the Tentative Order's new monitoring requirements. This renders the economic analysis</p>	<p>1) For the full response, please see Master Response Identifier C.8.d-4.</p> <p>We have considered costs throughout the Permit development process, strove to maintain costs that are roughly commensurate with those in MRP 2, and have incorporated cost saving measures into the Tentative Order.</p> <p>Regarding changes to the number of LID Monitoring sample events resulting from that power analysis, please see Master Response Identifier C.8.d-1.</p> <p>We have made additional reductions in the trash monitoring level of effort, by delaying outfall monitoring by a year, delaying in-stream monitoring by 2 years, dislocating those two components (which increases flexibility and may reduce costs further), and reducing the number of in-stream monitoring events down by 1, among other changes.</p> <p>Please see the response to the following combined comment, regarding these changes to Trash Monitoring:</p> <p>ACCWP-a8 SMCWPPP-14,15,165,167,171 San Jose-27 SCVURPPP-108,110</p>	<p>1) See proposed revisions discussed in other specific comments.</p> <p>2) The Fact Sheet has been revised regarding monitoring costs.</p> <p>3) This requirement is removed.</p>

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Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>conducted pursuant to Water Code Section 13241 flawed and underestimated, and also violates the requirements of Water Code Sections 13225(c) and 13267(b) because there is no discussion of the relative benefits and burdens of these enhanced monitoring requirements.</p> <p>3) C.8.d.i.(1)(g) requires that the cost of LID monitoring be commensurate with the cost of the Creek Status Monitoring and Stressor/Source Identification Projects required in the MRP 2.</p>	<p>2) The Fact Sheet has been revised to regarding monitoring costs. As explained in the Fact Sheet, Water Code section 13241 does not apply when the Water Board is implementing federal requirements, as is the case here. The required monitoring here is pursuant to the federal Clean Water Act, which requires monitoring to determine compliance with permit conditions, among other requirements. See, e.g., 40 CFR §§122.26(d)(2)(i)(F), 122.44(i) and 122.48. That said, costs are considered in the Fact Sheet. Water Code sections 13225(c) and 13267 do not apply here since the permit is a Clean Water Act permit and issued pursuant to Water Code, Chapter 5.5, pertaining to compliance with the Clean Water Act. Neither section 13225 nor 13267 is cited as a basis for any of the monitoring requirements. Water Code section 13383 is pertinent for monitoring requirements under the Clean Water Act, not sections 13225 or 13267. Therefore, there is no requirement that the burdens of monitoring, including costs, bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. That said, the burdens bear a reasonable relationship to the benefits to be obtained, namely determining compliance, assess the effectiveness of stormwater</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>controls, and inform decision-making and adaptive management. We recognize the cost burden of monitoring and have attempted to require only monitoring that is necessary and required.</p> <p>3) We have removed this requirement. Instead, we have conducted power analysis ourselves to determine the sufficient monitoring schedule for addressing the management questions in C.8.d LID Monitoring.</p> <p>Refer to the response to the following combined comment, below, regarding power analyses:</p> <p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95 SMCWPPP-143,144,146,147,148,149,212 Solano-5</p>	
CCCWP-40 Solano-5	C.8	The Tentative Order requires monitoring a significant number of events (i.e., seven samples per year for LID monitoring, three to four events per year for trash monitoring, and two events per year for pesticides and toxicity monitoring; multiple locations during essentially every storm), which will lead to personnel and safety issues for sampling teams.	<p>Though we have added LID Monitoring and made changes to Trash Monitoring (both with heavy input from Permittees), we have also eliminated Creek Status Monitoring and SSID Projects, and we have worked continuously with the Permittees to address concerns about level of effort, cost, safety, and logistics.</p> <p>For example, regarding logistics, we have added language which states that Permittees</p>	Revised as indicated.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>Local monitoring firms would need to add many more specialized staff to their teams, which is not feasible for these small local firms. In addition, it puts sampling crews at safety risks for working long hours, multiple days (potentially over a week) in a row, and in hazardous conditions to achieve all of the various monitoring stipulated in the Tentative Order. For reference, consider how many samples and locations that the RMP program plans to sample each year and how many they are able to actually achieve.</p>	<p>will not be penalized if there aren't enough storms to sample in a given year for Trash Monitoring (C.8.e.iii.(7)) they can make up those samples in a subsequent year, and we have also reduced the annual minimum sample events that must be collected for LID Monitoring (and for in-stream trash monitoring).</p> <p>Please see the following combined response, regarding the changes to the number of sample events for LID Monitoring:</p> <p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95 SMCWPPP-143,144,146,147,148,149,212 Solano-5</p> <p>Please see the response to the following combined comment, above, regarding monitoring costs:</p> <p>ACCWP-a6,a7 CCCWP-38,41 SCVURPPP-5,97 SMCWPPP-18,151 Solano-5</p> <p>Regarding Trash Monitoring, the Permittees already implemented what essentially amounted to a pilot Trash Monitoring in MRP 2, and the Trash Monitoring included in the</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>Tentative Order would require a similar implementation cost and level of effort.</p> <p>Regarding safety, C.8.e.iii.(6) says: "Permittees are exempt from outfall and receiving water sampling during dangerous and unsafe weather conditions." Additionally, regarding safety, please see the response to the following combined comment:</p> <p>ACCWP-a8 SMCWPPP-14,15,165,167,171 San Jose-27 SCVURPPP-108,110</p>	

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Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP-5,7 SMCWPPP-20	C.8	<p>1) Under Water Board staff direction, C.8 represents a significant departure from the monitoring programs developed and implemented under MRP 1 and MRP 2. Regional Probabilistic Creek Status Monitoring and Stressor Source Identification (SSID) projects, which have provided invaluable information on the health of our local creeks and helped identify high priority water quality concerns, have been replaced with new requirements for Low Impact Development (LID) effectiveness and Contaminant of Emerging Concern (CEC) monitoring. Trash receiving water monitoring has been moved from C.10 into C.8, with significant increases in the required level-of-effort and the proposed requirements are a shift from the monitoring goals outlined in MRP 2.</p> <p>2) The most concerning aspects of the proposed requirements in C.8, in addition to a significant change in the approach developed and implemented over the past two permit cycles without substantive</p>	<p>1) Some aspects of monitoring in MRP 3 are changed significantly from MRP 2, but other aspects are unchanged, such as pesticides and toxicity monitoring, and others are changed slightly. We removed creek status monitoring because additional creek status monitoring would not result in any new understanding at this time, as the results seemed to be constant, and would not inform additional management actions to improve water quality.</p> <p>We removed SSID Projects because there will be few new triggers without creek status monitoring. We have transformed trash monitoring into a compliance monitoring program, to inform the effectiveness of actions taken, which is critical as we approach the final compliance benchmark for Trash Load Reduction.</p> <p>The inclusion of LID Monitoring is explained in the Fact Sheet, as follows:</p> <p>LID Monitoring is intended to measure compliance and effectiveness of LID implementation. It will improve the</p>	See specific revisions proposed in response to other comments, including comments cited herein, at left.

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		<p>co-permittee support for the change, are described below and include: 1) substantial increases in costs; 2) lack of adequate time for planning; 3) lack of established technical feasibility; 4) lack of reliable methodologies; and 5) lack of prioritization.</p> <p>Regarding prioritization: Estimated costs to implement the various monitoring elements show that the Tentative Order prioritizes 1) Trash Monitoring, 2) LID Monitoring, and 3) POCs Monitoring. Reorder these priorities as follows: 1) POCs Monitoring, 2) LID Monitoring; and 3) Trash Monitoring. As such, the extensive trash monitoring requirements described in the Tentative Order should be reconsidered and significantly reduced to a scale of cost similar to the current permit or lower.</p>	<p>understanding of the following two management questions (which are repeated in Finding C.8-6 above) related to the implementation of LID controls:</p> <p>What are the pollutant removal and hydrologic benefits, such as addressing impacts associated with hydromodification, of different types of LID facilities, systems, components, and design variations, and how do they change over time?</p> <p>What are the minimum levels of O&M necessary to avoid deteriorated LID facilities, systems, and components that reduce pollutant removal and hydrologic benefit performance?</p> <p>The purpose of the first management question is to confirm that Permittees' LID controls are functioning as expected over time. Perhaps some design variations provide greater performance than others. The purpose is not only to compare relative performance between different types of MRP Permittee controls but also to compare their performance against the publicly-available databases of LID performance data, such as those of the International Stormwater BMP</p>	

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			<p>Database and SCCWRP’s California BMP Effectiveness Calculator.</p> <p>The purpose of the second management question is straightforward: to assess whether LID controls that receive relatively insufficient O&M perform relatively poorly compared to LID controls that receive relatively sufficient O&M, which will directly inform management actions (such as, what O&M activities to perform, and how much of it to perform how frequently).</p> <p>2) We disagree that there have been significant changes in the monitoring approaches without substantive Permittee support for the changes.</p> <p>Though there have been disagreements about certain issues such as level of effort and details such as annual minimum samples (both of which we have reduced in response to Permittee input), the Permittees have been largely supportive of many of the changes to C.8.</p> <p>Regarding cost, please see the response to the following combined comment, above:</p>	

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			<p>ACCWP-a6,a7 CCCWP-38,41 SCVURPPP-5,97 SMCWPPP-18,151 Solano-5</p> <p>To provide additional time for planning, we have revised the schedule to provide several additional months the before LID Monitoring Plans must be submitted, and have pushed back the start of MS4 outfall trash monitoring by one year and of in-stream receiving water trash monitoring by two years (and delayed the submittal of the Trash Monitoring Plan by one year).</p> <p>Regarding the comment on the lack of established technical feasibility and lack of reliable methodologies, we assume the comment is referring to the trash monitoring methods, but the in-stream trash monitoring methods have been piloted by 5 Gyres,¹² and the MS4 outfall trash monitoring has as well been tested and implemented in other places. Additionally, we have delayed the start date of MS4 outfall trash monitoring by 1 year and in-stream trash monitoring by 2</p>	

¹² https://static1.squarespace.com/static/5522e85be4b0b65a7c78ac96/t/58dd932f414fb5663b5a4f79/1490916184178/TCT+Creek+Monitoring+Report_FINAL.pdf

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			<p>years (and the report submittal by 1 year), meaning the Permittees will have a substantial amount of time to test and further pilot methods before they must be implemented.</p> <p>See the response to the following combined comment:</p> <p>ACCWP-a6,a7 CCCWP-38,41 SCVURPPP-5,97 SMCWPPP-18,151 Solano-5</p> <p>To provide additional time for planning, we have revised the schedule to provide several additional months the before LID Monitoring Plans must be submitted, and have pushed back the start of MS4 outfall trash monitoring by one year and of in-stream receiving water trash monitoring by two years (and delayed the submittal of the Trash Monitoring Plan by one year). Regarding POCs Monitoring, please see responses to (and proposed revisions for) specific comments on that subprovision.</p> <p>Regarding the comment on the lack of</p>	

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			<p>established technical feasibility and lack of reliable methodologies, we assume the comment is referring to the trash monitoring methods, but the in-stream trash monitoring methods have been piloted by 5 Gyres,¹³ and the MS4 outfall trash monitoring has as well been tested and implemented in other places, such as those referenced in the Fact Sheet:</p> <p>“...the vendor Stormwater Systems cites uses of such trash capture (monitoring) systems in Carrollton, Texas at Josey Ranch Lake, St. Louis, Missouri, and the Anacostia River Watershed in Maryland.¹⁴ There are many other examples of implementation of end-of-pipe and in-line systems, such as The Sock in the City of Kwinana, south of Perth, Australia,¹⁵ the TrashTrap in Oxnard, CA, and in Narragansett Bay, RI,¹⁶ Los Angeles</p>	

¹³ https://static1.squarespace.com/static/5522e85be4b0b65a7c78ac96/t/58dd932f414fb5663b5a4f79/1490916184178/TCT+Creek+Monitoring+Report_FINAL.pdf

¹⁴ <https://stormwatersystems.com/stormx-netting-trash-trap/>

¹⁵ <https://www.abc.net.au/news/2019-06-09/drain-sock-kwinana-pollution-solution-takes-world-by-storm/11190266?nw=0&r=HtmlFragment>

¹⁶ <https://stormtrap.com/products/trashtrap/#trashtrap-Projects>

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			<p>County,¹⁷ a large device controlling flows from a pump station prior to discharge into San Francisquito Creek and the Bay in the City of East Palo Alto,¹⁸ HDS units in the Cities of Livermore and Vallejo, and others. The San Francisco Estuary Partnership implemented, tested, and monitored 42 high-capacity trash control devices (both end-of-pipe and in-line) in more than 60 Bay Area municipalities, in a project that concluded in November 2013, many of which could be adapted as trash monitoring systems if they satisfy the other criteria included in Provision C.8.e.¹⁹ Here is a presentation that includes lessons learned for implementation in Philadelphia, PA (knowing the stormwater outfalls was an important consideration): https://delawareestuary.s3.amazonaws.com/pdf/Summit15/BallA/W-O'DayDel_Summit_Monit_Stormwater_Trash.pdf. Regarding in-stream monitoring, as discussed below, methods have been successfully piloted by 5 Gyres.²⁰ Caltrans installed trash capture devices at four trash</p>	

¹⁷<https://www.pw.lacounty.gov/wmd/irwmp/docs/Prop%2084%20Round%202%20Implementation%20Grant%20Application/Attachment%207%20Technical%20Justification%20%20of%2015.pdf#page=97>

¹⁸ https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2019/February/7b_ssr.pdf

¹⁹ <https://www.sfestuary.org/trashcapture/>

²⁰ https://static1.squarespace.com/static/5522e85be4b0b65a7c78ac96/t/58dd932f414fb5663b5a4f79/1490916184178/TCT+Creek+Monitoring+Report_FINAL.pdf

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			<p>capture pilot site locations in 2018,²¹ which are examples of devices that could readily be modified and used as monitoring devices for Provision C.8.e Trash Monitoring.”</p> <p>Additionally, we have delayed the start date of MS4 outfall trash monitoring by 1 year and in-stream trash monitoring by 2 years (and the report submittal by 1 year), meaning the Permittees will have a substantial amount of time to test and further pilot methods before they must be implemented. Please see the response to the following combined comment below, for more on this:</p> <p>CCCWP-45,46,108 Oakland-18,19 ACCWP-a8,45 SCVURPPP-7,109 SMCWPPP-14,19,166,171,182,183,214 Solano-7</p> <p>MRP 3 Testimony Hearing Transcript, October 12, 2021, Mitch Avalon, CCCWP – Page 74 (Line 16-25), 75 (Line 1-5)</p>	

²¹ Caltrans Site Identification Number: 4-430, Post Mile: 04-Ala-880-PM 23.73, Interchange: Davis Street, Device Type: StormTrap (FreshCreek), Construction Completion Date: 07/05/2018; Caltrans Site Identification Number: 4-431, Post Mile: 04-Ala-880-PM 16.58, Interchange: Highway 880/State Route 92, Device Type: Old Castle (KriStar), Construction Completion Date: 07/05/2018; Caltrans Site Identification Number: 4-432, Post Mile: 04-Ala-880-PM 7.37, Interchange: Mowry Avenue, Device Type: Modified Old Castle (KriStar), Construction Completion Date: 12/20/2018; Caltrans Site Identification Number: 4-433, Post Mile: 04-Ala-880-PM 6.29, Interchange: Stevenson Boulevard, Device Type: StormTrap (FreshCreek), Construction Completion Date: 12/04/2018.

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			<p>Regarding the comment on the lack of prioritization, the proposed monitoring program prioritizes needed work while deprioritizing work (e.g., creek status monitoring) that is not expected to result in substantial new information during the permit term. The level of effort reflects the regulatory requirements and need for monitoring, along with the expected benefit to be gained. All monitoring programs in the Tentative Order are important, and the level of effort assigned to each has been justified individually for each based on the ability of the information generated to address specified management questions. This justification has incorporated significant engagement with the Permittees regarding concerns about cost, level of effort, feasibility, and safety, among others.</p>	
MRP 3 Testimony Hearing Transcript, October 13,	C.8	I'm commenting on the monitoring portion of the proposed permit. And again, to remind everybody, I've been very engaged in the process with the L.A. County MS4	Please see Master Response Identifiers C.8-1 and C.8-2.	Please see referenced response.

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<p>2021, Daniel Cooper, Baykeeper – Page 109 (Line 21-25), 110 (Line 1-25), 111 (Line 1-25), 112 (Line 1-25), 113 (Line 1-25), 114 (Line 1-25), 115 (Line 1-18)</p>		<p>Permit, and so I'm very familiar with the terms of the monitoring program there.</p> <p>And I think the place to start is that I think everyone can agree all NPDES Permits must have monitoring sufficient to evaluate compliance by the permittees. The CWA and its implementing regulations require that, and I think we'd all agree that's the primary purpose of the monitoring program is to evaluate permit compliance.</p> <p>I'm focused on B.2, the receiving water limitations. That's the requirement that -- and this is required in all NPDES permits in Region 9. The discharge shall not cause or contribute to a violation of any applicable water quality standard for the receiving waters.</p> <p>The monitoring program must be sufficient to evaluate whether the discharges are causing and contributing to exceedances in receiving water limitations.</p> <p>In the MS4 Permit is that there must be monitoring sufficient to</p>		

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		<p>evaluate whether a city, or other municipal entity that's a permittee, and is discharging from its MS4 is complying with receiving water limitations or whether it's causing and contributing to exceedances.</p> <p>The monitoring program is not designed to do that and does not accomplish that. And it's not what the old permit required or did and it's not what the new one requires.</p> <p>There are essentially five questions being answered or five elements in the monitoring program. One is estuary monitoring, which is consistent with the old permit. One is LID monitoring, about effectiveness of LID programs, or program elements, various kinds of LID. Trash monitoring. Some pollutants of concern monitoring. And pesticides and toxicity.</p> <p>Only trash requires end-of-pipe monitoring. Everything else allows for end-of-pipe monitoring, but also provides for other alternatives, including sediment monitoring, sort</p>		

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		<p>of in the area where the MS4 might be discharging.</p> <p>The permit describes the purposes of this as evaluating trends, evaluating adequacy of certain types of BMPs, regional trends overall, and a regional contribution to impairment in the Bay. Monitoring does not evaluate permit compliance by permittees. It's not designed to evaluate whether discharges from the MS4 cause or contribute to water quality standard exceedances. And again, except for trash, end-of-pipe monitoring is not required.</p> <p>Looking at the way the monitoring is set out now, and the way that it was under the old permit, Baykeeper would have a very hard time, and I would challenge staff to tell you how to determine whether any individual city is complying with the permit requirements and whether they're causing or contributing to exceedances of water quality standards. Because there's no sampling in any one of the cities. It skips around the Bay to different areas, different regions,</p>		

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		<p>and it's not -- there's no repetitive sampling at any particular city, in fact any city really, to evaluate that city's implementation of the program and whether it's causing or contributing to exceedances.</p> <p>The permit does not require bacteria sampling. Baykeeper has obtained extensive bacteria sampling from the City of San Jose from its MS4, and we've also sampled ourselves in Sunnyvale and Mountain View. Every sample we've taken shows orders of magnitude concentration above water quality standards for bacteria, both in the receiving water and in the outfall.</p> <p>And we've also done molecular source tracking that that is -- there is human waste that is causing those bacteria exceedances. And we all know that human waste is the most risky in terms of human health, pathogens, and so on. It's a very big concern to have that stuff going down our creeks and into the Bay.</p>		

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		<p>I think staff would agree that urban stormwater exceeds water quality standards consistently during wet weather. I mean, every major rain event.</p> <p>Yet, no bacteria monitoring is proposed. And I don't know how staff would evaluate how bacteria water quality standards are being complied with from MS4 discharges without monitoring. And this is a critical element.</p> <p>In C.8.h, in the proposed monitoring program, where exceedances of water quality standards are determined or found from the monitoring, then that's when actions have to be undertaken to try and correct the problem. There's a trigger. But there's no explanation of how water quality standard exceedances are determined based on that monitoring. And given that there's no sampling for bacteria, certainly that parameter would not be triggered under the monitoring scheme proposed.</p>		

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		<p>I'll contrast this monitoring program with that in the Los Angeles permit. And under purpose and scope in the LA permit, assess compliance with receiving water limitations and water quality-based effluent limitations.</p> <p>Then it explains that it has stormwater outfall-based monitoring that shall be performed at outfall monitoring locations that are representative of the land uses within the permittee's jurisdiction.</p> <p>The objectives of the stormwater outfall-based monitoring program shall include, determine whether a permittee's discharge causes or contributes to an exceedance of receiving water limitations that apply in-stream.</p> <p>So, the LA permit has in-stream sampling, as well as end-of-pipe sampling, representative for each municipal permittee. And they get to pick which one they call representative, but then that's the compliance point for whether they're causing and contributing. That allows for a feedback loop. Is</p>		

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		<p>the program actually working? Is water quality getting any better? Is stormwater getting any better?</p> <p>That's not called for in this permit and we would urge several corrections. One would be end-of-pipe monitoring to make San Francisco equivalent to MS4 permitting in every major urban area in California, other than San Francisco. And that includes San Diego, Orange County, and LA.</p> <p>That would provide a feedback loop to ensure that the programs are actually working. And if we don't -- we're not making progress on water quality, everybody will know that and we can make course corrections as needed.</p>		
SMCWPPP-209	C.8 Fact Sheet	Several sections of the Fact Sheet, including C.8-5, were not updated from MRP 2 and don't make sense given the significant change in monitoring requirements between MRP 2 and MRP 3. For example, the Fact Sheet discusses the importance of biological and physical monitoring on a watershed scale, as recommended by the National Research Council.	<p>The cited section of the Fact Sheet has been updated.</p> <p>We agree and have updated the Fact Sheet to reflect the shift in monitoring to LID and more-specific receiving water monitoring from creek status monitoring. We recognize the importance and value of biological and physical monitoring. However, after more than ten years, there is minimal benefit to continuing the eliminated Creek Status</p>	Modified Fact Sheet, section C.8, as described.

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		This type of monitoring shows what is actually going on in receiving water. However, the TO does not include this type of monitoring.	Monitoring (including biological and physical monitoring). Baseline monitoring of all creeks has been completed and there is no near-term expectation for change. Consideration of additional or updated biological and physical monitoring will be relevant in future permit terms to evaluate long-term management actions that would cause a measurable change in creek conditions. The Stressor Source Identification monitoring tied to Creek Status Monitoring has been replaced with LID systems and trash control effectiveness monitoring, which are high priorities due to the high benefit costs of those actions.	
SMCWPPP-135	C.8.a.i	Permittees are encouraged to assign tasks to the RMC, particularly reporting duties. However, with dissolution of BASMAA, it is challenging to develop regional projects.	BASMAA has been replaced by the Bay Area Municipal Stormwater Collaborative (BAMSC), the purpose of which is to "continue the information sharing and Permittee advocacy functions of BASMAA in an informal manner after BASMAA's dissolution," according to the BASMAA website. In this Provision and in many other Provisions in the MRP, there remains a need for Permittees to coordinate regionally, which the Permittees may facilitate with any means, be it BASMAA, BAMSC, or some other option.	None.
SMCWPPP-136	C.8.a.ii	Comment notes that there are no changes to this Provision.	Comment noted.	None.
SMCWPPP-137	C.8.a.iii	Comment notes that there are no changes to this Provision.	Comment noted.	None.

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SMCWPPP-138	C.8.b	Comment notes that there are no changes to this Provision.	Comment noted.	None.
SMCWPPP-139	C.8.c	Comment notes that there are no changes to this Provision	Comment noted.	None.
Baykeeper-15b	C.8.d	<p>C.8.d does not provide useful information as written. It is likely that many Permittees will not conduct any LID monitoring within their jurisdictions; C.8.d should be revised so that there are specific monitoring requirements for each individual Permittee.</p> <p>C.8.d does not include a requirement that data generated will be used to recalibrate and validate models used to estimate pollutant removal and inform LID sizing requirements. C.8.d currently informs whether LID systems are functioning as intended rather than evaluation of compliance; it should be revised to require that the data be used for adaptive management purposes as required by State Board Orders WQ 2015-0075 and 2020-0038 (and to evaluate compliance).</p>	<p>We disagree. The LID Monitoring requirements apply to all Permittees, while providing a logical allowance to conduct studies at representative locations that are expected to be representative of similar LID systems in similar settings in all Permittees jurisdictions. Information gained from these studies will be relevant and applicable to all Permittees. The LID monitoring will thus inform Permittee compliance in addition to the effectiveness of LID controls. For example, it will provide information to verify or improve estimates of the total PCBs load reduced as a result of LID implementation. The monitoring results will inform Permittee compliance with respect to the types of controls instituted in similarly situated circumstances.</p> <p>LID effectiveness data cannot be used to calibrate or validate models. That can only be done with data representative of current watershed and receiving water conditions. Pollutant load reductions expected from LID systems can only be estimated using available effectiveness data. That said, the results produced by the LID monitoring studies will be used to improve those</p>	None.

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			<p>estimates, and to inform the next permit requirements, including reliance on and expectations for pollutant load reductions from LID systems.</p> <p>Also, please see Master Response Identifier C.11/12 – 4.</p>	
SMCWPPP-140	C.8.d	Comment notes that this is a new requirement.	Comment noted.	None.
SMCWPPP-15	C.8.d	It is unlikely that the value of the chemical data gathered through LID Monitoring justifies the great expense of sample collection and analysis, particularly when many of the constituents can be modeled or approximated based on less expensive parameters.	<p>We disagree. A purpose of LID Monitoring is to evaluate the efficacy of a representative subset of Permittees’ LID controls. We have limited the number of analytes that must be collected, recognizing that certain constituents (e.g., metals) may be modeled based on the performance of a single analyzed parameter. While modeling can, for example, inform design and construction, it cannot alone assess whether the constructed control is operating as intended, in part because it makes idealized assumptions about efficacy, and in part because it can predict, but not assess.</p> <p>Permittees are free to use modeling to supplement LID Monitoring, for example by using modeling to inform site selection, and compare real data collected to assumptions about performance based on modeling, but modeling cannot be used in lieu of data collection, whether chemical or flow data.</p>	None.

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Contech-4	C.8.d & C.8.f	<p>Add the following parameters to Table 8.d.2: Total Phosphorus, Orthophosphate, Nitrate, Nitrite, and TKN.</p> <p>Add the following parameters to Table 8.3: Total Phosphorus, Orthophosphate, Nitrate, Nitrite, and TKN.</p> <p>Justification: urban stormwater is likely a significant source of nutrient pollution, but nutrient management permits have not focused on characterizing or controlling nutrient loads from urban stormwater. N and P species are inexpensive to analyze (less than \$200/sample), and additional volume requirements will be no more than 300 mL).</p>	<p>Nutrients were included in MRP 2 C.8.f requirements, but have been eliminated for MRP 3. The Water Board is actively involved in efforts to understand the role of nutrients and their impact on San Francisco Bay. For the past decade, scientists at the San Francisco Bay Estuary Institute have been conducting modeling and monitoring studies to understand the role of nutrients on the trophic status of the Bay. These studies have determined that wastewater is, by far, the dominant source of nutrients to the Bay and the most important in determining nutrient-related impacts. Moreover, the nutrients delivered in stormwater often enter the Bay at a time of the year where there is not a high risk of algae growth because of lower (winter) temperatures. There is already an adequate understanding of nutrient loads from stormwater based on past modeling. Because there are not immediate information gaps associated with nutrients in stormwater, including nutrient monitoring requirements in C.8.f is not necessary during MRP 3.</p>	None.
SMCWPPP-141	C.8.d.i	Comment notes that this is a new requirement.	Comment noted.	None.
SCVURPPP-88 SMCWPPP-142	C.8.d.i.(1)(a)	LID Monitoring Plans may address only one (not both) of the management questions, and the language should be revised to explicitly allow this.	Insufficient justification is provided for this request. Each LID Monitoring Plan should address both management questions, and the Fact Sheet explains why they are important.	None.

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SCVURPP-91 SMCWPPP-145	C.8.d.i.(1)(d))	The minimum sample requirements specified in Table 8.d.2 may conflict with the LID Monitoring Plan requirement to set a monitoring schedule which may be greater than the numbers in Table 8.d.2. Which do Permittees comply with?	<p>This comment likely refers to language regarding performance of power analysis which has been removed, therefore the concerns raised in this comment is likely no longer relevant. This comment likely refers to language regarding performance of power analysis which has been removed (we performed the power analysis ourselves, and subsequently updated Table 8.d.2), therefore the concerns raised in this comment have been indirectly addressed.</p> <p>Regardless, in the LID Monitoring Plan(s) the Permittees will have the discretion to include a greater number of sample events than the minimum required in Table 8.d.2.</p> <p>Please see the response to the following combined comment, about how the power analysis was used to modify Table 8.d.2:</p> <p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95 SMCWPPP-143,144,146,147,148,149,212 Solano-5</p>	<p>Please see the response to the following combined comment, about how the power analysis was used to modify Table 8.d.2:</p> <p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95 SMCWPPP-143,144,146,147,148,149,212 Solano-5None.</p>
SCVURPPP-96 SMCWPPP-150	C.8.d.i.(1)(f)	The TO requires development of "study-specific QAPrPs" that are equivalent to the SWAMP QAPrP. This appears to be a typo. The SWAMP Quality Assurance Program Plan (QAPrP) differs from a study-specific Quality Assurance	<p>We agree and have revised C.8.d.i.(1)(f) to state:</p> <p>"Include study-specific Quality Assurance Project Plans (QAPPs), which at a minimum are SWAMP-comparable."</p>	Revised C.8.d.i.(1)(f) as noted.

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		<p>Project Plan (QAPP). Because these are different types of documents, it would be inappropriate for the study-specific QAPP to be equivalent to the SWAMP QAPrP.</p> <p>Revise to: "Include study-specific Quality Assurance Project Plans (QAPPs), which at a minimum are comparable to the SWAMP QAPrP."</p>	<p>We agree and made the requested revision.</p>	
<p>SCVURPPP-97 SMCWPPP-151</p>	<p>C.8.d.i.(1)(g)</p>	<p>Remove the requirement to provide annual cost estimates.</p>	<p>This comment was largely regarding concerns about the requirement to perform power analysis, and then to produce a monitoring schedule which might result in a greater number of sample events than the required minimums. However, since the requirement to do power analysis and propose a monitoring schedule which may be more intense than the required minimums, and since we have removed the requirement that the Permittees' cost of implementation of C.8.d in the Tentative Order is commensurate with the cost of implementation of C.8.d from MRP 2, the concern raised in this comment is largely addressed.</p> <p>That aside, it is important for Permittees to submit annual C.8.d implementation cost estimates in their LID Monitoring Plans, to</p>	<p>See other comments and responses regarding power analysis, including the following combined comment:</p> <p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95 SMCWPPP-143,144,146,147,148,149,212 Solano-5 Removed cost estimates</p>

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			<p>help them and Water Board staff anticipate the level of effort and resources that this new monitoring program will require, to allow preemptive comparison to other monitoring provisions in the upcoming Permit term and in Previous Permit terms.</p> <p>See other comments and responses regarding removal of power analysis, including the following combined comment:</p> <p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95 SMCWPPP-143,144,146,147,148,149,212 Solano-5</p>	<p>requirement in C.8.d.</p>
<p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95 SMCWPPP-143,144,146,147,148,149,212 Solano-5</p>	<p>C.8.d.i.(1)(d)</p>	<p>1) Remove the requirement to conduct a power analysis for the LID Monitoring Plan, as there is not enough known information (e.g., the normality of the distribution, the parameters of the distribution, and acceptable error rate) available to conduct the power analysis. While this information may be known for certain parameters in datasets outside of the Bay Area, it is not clear whether those data can be extrapolated to the Bay Area. With worsening drought conditions, the number of storm events per year that produce runoff may be less</p>	<p>1) It is not true that currently there is insufficient information available with which to perform the power analysis. In the case of LID Monitoring, all that is needed is a sufficiently large dataset containing performance data (the ratio of effluent and influent) for a parameter(s) of interest, which has a normal distribution (or a distribution that is reasonably normal once transformed) if running a parametric test, but if running a nonparametric test, a normal distribution is not needed. We have access to two databases with exactly the data needed to perform power analyses to inform a monitoring schedule for LID Monitoring, which satisfies the aforementioned criteria: SCCWRP's California BMP Effectiveness</p>	<p>Removed the requirement to perform power analysis.</p> <p>Reduced the number of total and annual sample events in Table 8.d.2 but clarified that those are sample events not individual samples.</p>

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		<p>than the number of samples needed to meet the desired confidence and power. The coefficient of variation and acceptable error rate are extremely sensitive parameters that can impact the required number of samples by orders of magnitude. For influent and effluent sampling, it is much more difficult to detect small changes in concentration, therefore, LID sites/constituents with low removals or low influent concentrations will inherently require a larger number of samples than sites/constituents with high influent concentrations and high removals. Also remove this requirement from the Fact Sheet.</p> <p>2) SCVURPPP-92 and SMCWPPP-146 say: Power analysis can be a useful tool to estimate sample sizes needed for detecting trends over time in long-term monitoring programs of many years (10 or 20 years). However, the LID Monitoring studies conducted during MRP 3 are likely too short (less than five years) to detect trends, especially considering that precipitation</p>	<p>Calculator (https://sccwrp.shinyapps.io/bmp_eval/) and the International Stormwater BMP Database (https://bmpdatabase.org/get-data).</p> <p>Power analysis involves repeatedly performing student t-tests to compare the mean from a known distribution to the mean from some future data distribution. We then evaluate if we can tell the statistical difference between the known and future means at a given sample size, significance level and statistical power. Significance level is typically set at 5% and power at 80%. Significance level means the chance that differences as large as those observed could occur by chance. Since our null hypothesis is that the future data are from the same population as the existing data, this can also be understood as the probability that we would incorrectly reject the null hypothesis. The quantity 100% – Power is the probability that we would incorrectly accept the null hypothesis. In other words, if we see differences between the existing data and the future data of a certain magnitude, those differences either indicate a real difference between the data means (i.e., they are from different populations), or the differences are due to bad luck from a non-representative sample – just by chance. Statistical significance is about being wrong about</p>	<p>Sample events may be completed in a subsequent water year if there are not enough storms to sample in a given water year.</p>

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		<p>conditions during the permit term may not represent long-term conditions. Therefore, power analysis is not likely to help the Programs develop useful LID Monitoring Plans.</p> <p>3) SCVURPPP-93 and SMCWPPP-147 say: Detecting pollutant removal by a LID facility is not the standard type of trend that a power analysis informs. Power analysis is more suited to inform trends in large populations over long periods of time when a large number of samples can be collected.</p> <p>4) SCVURPPP-94 and SMCWPPP-148 say: Running a power analysis requires technical expertise and existing data on the spatial and temporal variance in the system. Because the LID facilities likely to be monitored by the Programs are recently built, it is extremely unlikely that we know any of the input values needed to run a power analysis. The many assumptions required will compromise the power analysis results.</p>	<p>saying the means (and, hence, the distributions) are different. Power is about being wrong about saying the means are not different.</p> <p>However, to reduce the burden on the Permittees to perform the power analysis, and to comply with their request to remove it from the LID Monitoring Plans, we have removed the requirement for the Permittees to conduct a power analysis for the LID Monitoring Plans, conducted the power analysis ourselves, and modified the TO in response .</p> <p>For the full response, please see Master Response Identifier C.8.d-1.</p> <p>2) See Master Response Identifier C.8.d-2.</p> <p>3) The comment from SCVURPPP-93 and SMCWPPP-147 is contrary to our understanding. Power analysis can and has served exactly the purpose that we have described here.</p> <p>See our responses above in this same combined comment, which detail how we have used power analysis.</p> <p>4) See Master Response Identifier C.8.d-3.</p>	

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		<p>5) SCVURPPP-95 and SMCWPPP-149: If natural variability is high, as is likely in most water quality monitoring studies due to climate conditions and pollutant fate and transport mechanisms, it simply may not be possible to achieve the power level required in the TO.</p> <p>6) Use this permit term to develop the basis for monitoring and understand the variance of the monitoring results. Rather than basing the number of samples solely on a power analysis, the Regional Board should consider defining qualifying storm event criteria for sampling and then allow the permittees to consider the number of qualifying storm events that have occurred based on the rainfall record.</p> <p>7a) A power analysis should use a single representative constituent that is frequently detected, such as TSS, to inform the analysis. Otherwise, the parameter with the highest variability or lowest removal will drive the number</p>	<p>5) This comment largely is concerned about the requirement for the Permittees to perform power analysis, but as described above, we have removed that requirement, as we have performed the power analysis ourselves.</p> <p>Also, as described (and referenced) above, it is now possible to perform non-parametric power analysis, so the consequences of the variability that is cited in the comment is no longer as concerning. But regardless, we have already done the power analysis, so the Permittees do not need to worry about this.</p> <p>6) This Permit term <i>will</i> be used to develop the basis for monitoring and understand the variance of the monitoring results, and adjustments may be made in subsequent Permit terms as the LID Monitoring program is carried forward.</p> <p>For the full response, please see Master Response Identifier C.8.d-5.</p> <p>7a) We disagree. There is no basis for the claim that power analysis should – or can only – use one parameter to inform a monitoring schedule. We performed power analysis on three representative (indicator) parameters, TSS, Copper and Zinc, and together, the power analysis on these three</p>	

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		<p>samples required, which may be impractical (see additional comment below) and counter-productive to the goals of the monitoring program.</p> <p>7b) Also, it may not be possible to adequately characterize infrequently detected constituents with parametric statistics.</p> <p>7c) The practicality of collecting sufficient stormwater sampling data should be considered as well. With worsening drought conditions, the number of storm events per year that produce runoff may be less than the number of samples needed to meet the desired confidence and power. The frequency of sampling is also a matter of practicality. Ideally, a monitoring program should have samples distributed across different seasons, storm sizes, durations, and inter-event times. However, the occurrence of runoff events and ability of sampling teams to mobilize to collect samples often drives the frequency of sampling.</p>	<p>parameters suggests the reductions in sample events that are discussed above.</p> <p>7b) We disagree that power analysis should not be used simply if it is anticipated that the data are nonparametric, because as described above, we can now use nonparametric power analysis.</p> <p>7c) We agree that practical and logistical concerns should also be considered, and we have done so. As described above, we have made additional reductions to the annual minimum number of sample events, to accommodate those concerns.</p>	

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San Jose-26	C.8.d.ii	Provision C.8.d.ii implies that there is a single regional LID Monitoring Plan, and/or that each Permittee must submit its own individual LID Monitoring Plan (comment is unclear). It should be revised to clarify that countywide/regional Plans are acceptable.	The requested flexibility is already allowed, pursuant to Provision C.8.d.i.(1): "The Permittees shall, at the regional or countywide level, develop LID Monitoring Plans to implement the requirements in Provision C.8.d.iii-iv..."	None.
ACCWP-a7,40 CCCWP-43 San Jose-25 SCVURPPP-7,98,105 SMCWPPP-14,19,152,160,213	C.8.d.ii & C.8.d.vi	Not enough time is allowed for the development of the LID Monitoring Plans. Delay the submittal of the draft LID Monitoring Plans to the TAG, and of the final LID Monitoring Plans to the Water Board, each by 4 months. SMCWPPP-213 requests that any changes to these deadlines be reflected in the Fact Sheet.	<p>For the full response, please see Master Response Identifier C.8.d-7.</p> <p>The requested delays would allow Water Board staff 3 months, between July 1, 2023, and September 30, 2023, to review the 5 final LID Monitoring Plans, and then approve or conditionally each of them. If any of the final LID Monitoring Plans are conditionally approved, such that they require significant changes before they are implemented, the Permittees would have very limited time to revise the Plans and accordingly adjust their planned implementation of the Plans. Since Permittees will be required to start monitoring on October 1, 2023 (the start of the 2024 water year), they might have as little as a few weeks to revise and adjust before they must start monitoring, depending on how quickly Water Board staff are able to review and approve/conditionally-approve the final LID Monitoring Plans.</p> <p>Therefore, we have delayed the submittal of</p>	Delayed the submittal of the draft LID Monitoring Plans to the TAG from January 1, 2023, to March 1, 2023, and the submittal of the final LID Monitoring Plans to the Water Board from March 1, 2023, to May 1, 2023. Updated the Fact Sheet accordingly.

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			<p>the draft LID Monitoring Plans to the TAG, and of the final LID Monitoring Plans to the Water Board, each by 2 months. That is, the submittal date of the draft LID Monitoring Plans to the TAG will be delayed from January 1, 2023, to March 1, 2023, and the submittal date of the final LID Monitoring Plans to the Water Board will be delayed from March 1, 2023, to May 1, 2023. This is a reasonable compromise that will afford Permittees sufficient extra time to develop their draft and final LID Monitoring Plans, while ensuring that Water Board staff have sufficient time to review and approve/conditionally-approve those final LID Monitoring Plans, and finally, ensuring Permittees have sufficient time to incorporate any changes required in the conditional approvals (if any) of final LID Monitoring Plans.</p>	
<p>SCVURPPP-99 SMCWPPP-153</p>	<p>C.8.d.iii</p>	<p>Not all hydrologic performance monitoring methods are appropriate for all LID facilities. Therefore, these methods should have the word "or" placed after them in the list.</p> <p>Add the word "or" after each hydrologic monitoring method in the list.</p>	<p>As we have specified that automated samplers are required for flow-weighted (or time-weighted) composite EMCs at the inlet and outlet, it is appropriate to collect (record) the flow data at the inlet and outlet via the automated samplers. Therefore, we have clarified that such data collection is mandatory.</p> <p>Regarding the other hydrologic methods, they are optional, and we have clarified the language accordingly. The requested change</p>	<p>Revised C.8.d.iii as indicated.</p>

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			to this list of optional hydrologic methods is not necessary because the word "or" is already included prior to the last item in the list. Grammatically, that "or" applies to each preceding item in the list.	
SCVURPPP-100 SMCWPPP-154	C.8.d.iii	<p>1) Management Question #2 could be addressed exclusively through analysis of existing data or maintenance records. This would allow investigations to look back in time. This method should be added.</p> <p>2) The use of the word "and" after each hydrologic method in the list in Table 8.d.1 limits flexibility in monitoring designs and appears to force use of all methods in the design. The list should have "or" after each method rather than "and."</p>	<p>1) While analysis of existing data and maintenance records can and should inform Permittees' investigation of this management question in MRP 3, it cannot replace the information provided by monitoring influent and effluent during storm events. For example, if two sampled LID BMPs have similar designs, construction, and pollutant loading, but monitoring conducted for the LID Monitoring program reveals that they have different performance data, Permittees might consult maintenance records to see if, for example, the relatively underperforming LID BMP is in need of O&M while the well-performing LID BMP has receiving an adequate level of O&M.</p> <p>2) Please see the response to the following combined comment, above:</p> <p>SCVURPPP-99 SMCWPPP-153</p>	<p>1) None.</p> <p>2) Please see the proposed revision for the following combined comment, above:</p> <p>SCVURPPP-99 SMCWPPP-153</p>
ACCWP-42	C.8.d.iv	Edit the text in the box for Alameda in Table 8.d.2., by adding the following text at the end of the sentence: "...bioretention, and/or other LID measures."	The requested change is appropriate and clarifies the original intent of the language.	Revised C.8.d.iv as requested.

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<p>ACCWP-a7,43 CCCWP-44 Contech-4 SCVURPPP-7,102,103 SMCWPPP-17,156,157,210 Solano-6</p>	<p>C.8.d.iv</p>	<p>1) The list of parameters in Table 8.d.2 will make each sample expensive to analyze, some parameters may not be appropriate for answering certain management/monitoring questions, and some parameters don't have standard laboratory and field methods (e.g., PFAS, microplastics, 6PPD-quinone). Analysis of PCBs may be best suited for studies evaluating GSI facilities located in old industrial areas, but not in areas with little to no PCBs in runoff. Analysis of PFAS may be appropriate for studies evaluating infiltration of treated stormwater to the underlying aquifer, but not in studies focusing on the long-term effect of variable operation and maintenance frequencies. Revise the list so that only solids (e.g., TSS or SSC) are a required parameter, and all other parameters are optional and should be sampled depending on which management question is being investigated at a particular monitoring site. TSS could be used as a cost-efficient proxy for other pollutants.</p>	<p>1) For the full response, please see Master Response Identifier C.8.d-8.</p> <p>We agree generally that not all of the parameters we put in that table should be required for each site. We have revised the table, into required and optional parameters. Required parameters may no longer be excluded from the LID Monitoring Plans, but Permittees do not have to justify the exclusion of optional parameters.</p> <p>2) For the full response, please see Master Response Identifier C.8.d-8.</p> <p>The required CECs has been reduced to PFAS and there are available field and laboratory methods for the most critical PFAS compounds.</p> <p>3) For the full response, please see Master Response Identifier C.8.d-9.</p> <p>We disagree. Of course, Permittees are encouraged to perform whatever flow modeling they deem necessary to help them choose sites and to evaluate collected data, but flow modeling cannot replace the utility of flow sampling or otherwise offset required flow sampling.</p> <p>Since the required sample methodology is</p>	<p>1) Revised as indicated. We have included required and optional parameters; LID Monitoring Plans may not exclude required parameters, but they do not have to justify exclusion of optional parameters.</p> <p>2) None. Flow data will be collected for every sample event.</p> <p>3) None.</p> <p>4) We have revised Table 8.d.2 and the accompanying footnote to clarify that sediment sample</p>

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		<p>2) Monitoring for new CECs without fully developed methods and protocols is better suited to the Regional Monitoring Program, which the Permittees pay into.</p> <p>3) Not all monitoring designs will require sampling of flowing water. For example, studies that assess O&M as well as performance through pollutant accumulation in media do not require flow monitoring. Flow should be removed from the list of parameters and the following footnote should be added to address flow and flow modeling: "All studies shall include the collection of discrete and/or continuous flow and/or volume measurements to adequately address the applicable Management Question(s) identified in the Monitoring Plan(s). A combination of modeling and monitoring may be used to assess the hydrology of GSI facilities."</p> <p>4) Some parameters may be appropriate for analyzing in sediment samples, and others may</p>	<p>flow-weighted (or time-weighted) composite EMC via automated sampler, that monitoring system incorporates the measurement and recording of flow data. So, we flow data will be collected through the use of that sample methodology.</p> <p>4) We disagree. To allow that would erode the justification for the minimum numbers of water quality (and flow) sample events in Table 8.d.2 provided by the power analysis. Therefore, although the Permittees are encouraged (but not required) to additionally collect sediment samples (and analyze those samples for total PCBs, total mercury, etc.), such sediment sampling may not be credited towards the required water samples specified in Table 8.d.2.</p> <p>Please see the response to the following combined comment above, regarding the power analysis:</p> <p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95 SMCWPPP-143,144,146,147,148,149,212 Solano-5</p> <p>5) We agree with this request. Certain parameters are required and are optional. See the response and proposed revision earlier in this combined comment.</p>	<p>collection cannot be credited towards the sample events in Table 8.d.2, which are water quality samples at both the inlet and outlet taken during storm events.</p> <p>5) Revised as requested.</p> <p>6) See the proposed revision for Contech-4, above.</p>

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		<p>be appropriate for analyzing in water samples. Distinguish which parameters are required for which types of samples.</p> <p>5) Remove the requirement to provide justification to eliminate parameters.</p> <p>6) Contech-4 requests that Total Phosphorus, Orthophosphate, Nitrate + Nitrite, TKN be added to the list of parameters in Provision C.8.d, with the following justification: Urban stormwater is likely a significant source of nutrient pollution, but nutrient management permits have not focused on characterizing or controlling nutrient loads from urban stormwater. N and P species are inexpensive to analyze (less than \$200/sample), and additional volume requirements will be no more than 300 mL). Adding nutrients to the list of monitoring parameters in sections C.8.d would help to characterize the load coming from stormwater runoff. <u>The same is requested for Provision C.8.f, but that is addressed separately.</u></p>	<p>6) See the response to Contech-4.</p>	

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SCVURPPP-104 SMCWPPP-158	C.8.d.iv	<p>The Permit should include commercially available analytical methodologies for required parameters to ensure regionwide consistency in analytical data.</p> <p>Add a table showing commercially available analytical methodologies for the required parameters in Table 8.d.2.</p>	<p>We agree that regionwide consistency is imperative; therefore, we have included that consideration as a required component of the LID Monitoring Plan(s), and as a required point of discussion for the TAG.</p> <p>We have added the following language to Provision C.8.d.iv:</p> <p>Monitoring must be conducted according to test procedures in 40 CFR part 136 for analyses of pollutants unless another method is required under 40 CFR chapter 1, subchapter N. For PFAS, if there are no standard methods in 40 CFR part 136, Permittees may use other methods, such as those recommended by U.S. EPA for non-potable water and other environmental media.</p>	Revised C.8.d.iv as indicated.
ACCWP-a9 SCVURPPP-7,101 SMCWPPP-15,16,155,211	C.8.d.iv & C.8.e.iii	It is impractical to include annual minimums, because in any particular year there may not be enough storm events to sample. Remove that requirement and allow the Permittees to collect the total required number of samples over the course of the Permit term, and also reduce the number of samples that Permittees are required to collect "as long as the overall level-of-effort in the final Monitoring Plan is equivalent to the	See Master Response Identifier C.8.d-6.	Revised as indicated in Master Response Identifier C.8.d-6.

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		level-of-effort included in this Provision." Also remove this from the Fact Sheet.		
SMCWPPP-159	C.8.d.v	Comment notes that this is a new requirement.	Comment noted.	None.
Solano-4	C.8.d.vi	Reduce by half the 'Total Minimum Number of Water/Sediment Quality Samples Collected During the Permit Term (Annual Minimum)' in column 3 from 12 (2) to 6 (1). Solano Permittees represent 4% of the total population overseen by MRP3, and request that the required sampling scale and magnitude be consistent with our relative size. A requirement of 12 (2) would result in the Solano Permittees providing 8% of the total samples required across all the programs for C.8.d. Low Impact Development (LID) Monitoring. Reducing the requirement to six (6) samples during the permit term, with a minimum of one (1) annual sample would result in a total of 136 samples during the permit term and 26 annually across all MRP 3 jurisdictions. This is compared to the proposed reduction to 142 total and 27 annual samples, where	<p>We disagree with this requested change. Reducing the total number of sample events for the Solano Permittees is demonstrably not supported by the power analysis, and they are already greater than half the total number of sample events required for any of the other county stormwater programs; the level of effort is equitable and appropriate.</p> <p>Though we do not support reducing the total number of sample events, we have reduced the annual sample event minimum for the Solano Permittees from 2 to 1.</p> <p>Additionally, we note that we have added language allowing Permittees to make up sample events in the subsequent water year, if there aren't enough storms to sample in a given water year.</p> <p>Please see the response to the following combined response, above:</p> <p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95</p>	<p>See the revision proposed for the following combined comment, above:</p> <p>ACCWP-a9,41 SCVURPPP-89,90,92,93,94,95 SMCWPPP-143,144,146,147,148,149,212 Solano-5</p>

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		Solano Permittees would contribute 4% of the total sampling effort versus 8%. This reduction would be consistent with the objective to create equity between programs.	SMCWPPP-143,144,146,147,148,149,212 Solano-5	

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Baykeeper-15c	C.8.e	<p>1) The monitoring frequency requirements in C.8.e.ii and C.8.e.iii are confusing because indirect monitoring seems to require 4 sample events per year while direct monitoring seems to require 3 sample events per year. Revise the table under C.8.e.iii.(1) to include monitoring requirements for both direct and indirect monitoring, to reduce confusion.</p> <p>2) One to 3 sites per county is not enough to assess individual Permittee’s compliance.</p> <p>3) Monitoring for full trash capture devices is required at the Permittee level; other trash controls should also be monitored by each individual Permittee.</p> <p>4) Revise Provision C.8.e.iii to include more specific requirements like those required for permittees in Region 4, including, but not limited to: 4a) requiring alternative monitoring locations in addition to primary monitoring locations, 4b) requiring at least one monitoring station per reach and tributary, 4c) requiring sampling be repeated at</p>	<p>1) We have revised C.8.e such that this comment is no longer relevant.</p> <p>Regarding on-land trash monitoring, because it is optional, it would not be appropriate to include minimums in a table.</p> <p>2) In accordance with the Trash Amendments, an individual Permittee’s compliance is demonstrated by documentation of full trash capture systems implementation and monitoring to demonstrate full trash capture equivalency of other actions through visual trash assessments in drainage areas. By design, the purpose of this trash monitoring is to demonstrate at representative locations that full trash capture systems or equivalent actions are achieving expected outcomes. The results are applicable to all Permittees implementing trash controls equivalent to those implemented in the representative trash monitoring sites.</p> <p>The amount of monitoring takes into consideration that the required trash monitoring methods are relatively novel and are thus new to the Permittees. It is reasonable that in a future permit the Water Board may consider increasing the number of Trash Monitoring sites, and we have revised the Fact Sheet to make this clearer.</p>	<p>1) None.</p> <p>2) Revised the Fact Sheet as indicated.</p> <p>3) Revised as indicated.</p> <p>4a) None.</p> <p>4b) Revised as indicated.</p> <p>4c) Revised as indicated.</p> <p>4d) None.</p> <p>4e) None.</p> <p>5) None.</p> <p>6) None.</p>

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		<p>the same monitoring stations over time and under different seasonal conditions, and 4d) requiring sampling assessments be repeated at the same site where trash was collected during the previous assessment(s) unless an alternate location is approved. 4e) Monitoring locations should also be selected at outfall representative of distinct land uses and catchment sizes.</p> <p>5) Comment is supportive of the language in C.8.e.ii.(3) that "The riverine qualitative visual assessment method and the unoccupied aerial system (UAS) method may be merited but require additional study, refinement, and calibration, and their use is subject to the Executive Officer's approval."</p> <p>6) Remove "...or other equivalent methods," from C.8.e.ii.(3), as the monitoring methodologies under Tiers 3 and 4 have already been evaluated and approved as technically sound and there is no reason to allow for alternative</p>	<p>3) Comment misinterprets the Provision. Permittees are not required to monitor full trash capture devices only, but also tributary drainage areas that achieve Low trash loading via the implementation of full trash capture equivalent actions.</p> <p>However, we agree that the Provision should more clearly state this. C.8.e.iii has been revised accordingly, with the addition of C.8.e.iii.(5).</p> <p>4a) This request is not clear. However, the revisions to C.8.e are such that there <i>are</i> essentially primary monitoring sites (MS4 outfall sites), secondary monitoring sites (in-stream sites), both of which are mandatory, and tertiary monitoring sites (on-land sites), which are optional.</p> <p>4b) We have not increased the number of sampling events because we recognize the challenges associated with cost and site selection, particularly as the Permittees are relatively new to the required methods for MS4 outfall monitoring and in-stream monitoring. Please refer to the response to SMCWPPP-168, and to the following combined comment, regarding the use of these relatively novel methods, and how they</p>	

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		<p>monitoring methodologies which have not been studied.</p>	<p>essentially constitute a pilot project (and that the Water Board may therefore consider increasing the number of sites/events in a future Permit term):</p> <p>ACCWP-a8 SMCWPPP-14,15,165,167,171 San Jose-27 SCVURPPP-108,110</p> <p>We have also added language to the Fact Sheet, clarifying this: "...the Trash Monitoring program to be implemented by the Permittees during this Permit term essentially constitutes a pilot project, and the Water Board may consider expanding the scope of the program in a future Permit term by increasing the number of sites and/or events."</p> <p>4c) Sampling <i>is</i> required to be repeated over time - Each site is to be sampled repeatedly during each year, for each year during the Permit term.</p> <p>However, we agree that Permittees should, to the extent possible, try to keep the monitoring sites constant during the Permit term; we have made a responsive revision – see C.8.e.iii.(4).</p>	

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			<p>We do not agree that there should also be mandatory sample events during the dry season, because trash is not likely to be mobilized; it is therefore not likely to be a good use of scarce resources.</p> <p>4d) We disagree. The management and monitoring questions have changed, and therefore the sample locations may also need to change if the program is to address those questions. At their discretion, Permittees may choose sample sites that are coincident with (or close to) the sites sampled on-land during MRP 2, so long as they satisfy the criteria in C.8.e in MRP 3.</p> <p>4e) What the comment requests is already incorporated into the Provision.</p> <p>5) Comment noted.</p> <p>6) We disagree. While it is likely that established methods will be used, the inclusion of language allowing equivalent methods would encourage innovation and implementation of improved methods to collect the identified data.</p>	

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Comment No.	Provision	Comment	Response	Proposed Revision
Save the Bay-3	C.8.e	<p>1) C.8.e should be revised so that Permittees monitor outfalls draining not only areas controlled by (a) full trash capture devices, but also areas controlled by (b) full trash capture equivalent actions. Make explicit that some monitoring sites should be include a mix of (a) and (b), rather than simply allowing either (a) or (b).</p> <p>2) The Water Board should require additional outfall monitoring sites in each county.</p>	<p>1) We agree that it is appropriate to select monitoring sites of both types and have made a responsive edit. See the response to Baykeeper-15c (part 3), above.</p> <p>2) See the response to Baykeeper-15c (part 2)), above.</p>	<p>1) Revised as indicated. See the proposed revision for Baykeeper-15c (part 3), above.</p> <p>2) See the proposed revision for Baykeeper-15c (part 2)), above.</p>
CCCWP-39,45 Oakland-18 SCVURPPP-6,7,106 SMCWPPP-14,15,161,174 ACCWP-a8	C.8.e	<p>The estimated cost associated with implementation of the indirect methods are unreasonable, are significantly greater than those associated with the MRP 2 trash monitoring pilot project, and would effectively make Trash Monitoring the highest monitoring priority for MRP 3, which does not align with the Permittees' desires. For example, ACCWP-a8 would like POCs Monitoring to be the highest monitoring priority, followed by LID Monitoring, followed by Trash Monitoring. SCVURPPP-7 asks that: the trash monitoring requirements be reconsidered and significantly reduced to a scale of</p>	<p>See Master Response Identifier C.8.e-1.</p>	<p>The use of indirect methods, and C.3.e.iii.(2), have been removed, thereby significantly reducing the cost associated with the Permittees' implementation of C.8.e.</p>

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		<p>cost similar to the current permit or lower.</p> <p>Some comments also say that "there is no reduction in monitoring costs elsewhere in C.8 to offset the increase [to trash monitoring]."</p>		
SMCWPPP-162	C.8.e.i	Comment notes that this is a new requirement.	Comment noted.	None.
SMCWPPP-163	C.8.e.ii	Comment notes that this is a new requirement.	Comment noted.	None.
ACCWP-a8 SMCWPPP-14,15,165,167,171 San Jose-27 SCVURPPP-108,110	C.8.e.ii	The direct methods described in Provision C.8.e are either untested by the Permittees and/or have not been assessed as to whether they can answer the Management/Monitoring Questions, and/or are unsafe. The Water Board should therefore describe (e.g., in the Fact Sheet) the referenced direct methods, and should include examples of their implementation.	See Master Response Identifier C.8.e-3.	<p>Revised as indicated.</p> <p>As requested, we have include examples of implementation of the direct trash monitoring methods in the Fact Sheet.</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP-107 SMCWPPP-164	C.8.e.ii	The TO requires that indirect assessment methods are conducted for a 300-foot distance. This length may not be appropriate for many sites, particularly those with tributaries that discharge within the 300-foot reach, or contain steep banks and dense vegetation which make physical access to assessment reach challenging. Change language to: ".....sample the shoreline and/or stream bank (on-land), within 300 feet downstream of the outfall."	<p>The 300-foot metric came directly from the Permittees' own work in MRP 2, and from SFEI and SCCWRP's California Trash Monitoring Methods project (https://www.sfei.org/projects/california-trash-monitoring-methods-project, https://sites.google.com/sfei.org/trash/), and the method therein required sampling along the entire 300-foot assessment length, rather than simply "within" the 300-foot assessment length. Those methods do not allow self-determination of assessment length; a standard assessment length is repeated for all sites to ensure high quality data, as the methods explain and justify in detail.</p> <p>However, since the indirect methods have been removed from C.8.e, this is no longer of major concern. On-land trash monitoring is recommended but no longer required, and as such, though the Permittees are advised to use a 300-ft assessment length (if/when they implement on-land trash assessments), they are explicitly allowed to self-determine the assessment length.</p>	None.

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San Jose-27 SMCWPPP-174	C.8.e.ii	Collection of data on material type is resource intensive, and may itself be unsafe (in particular, during storm events).	See Master Response Identifier C.8.e-4. For concerns regarding general safety, please see the response to the following combined comment, above: ACCWP-a8 SMCWPPP-14,15,165,167,171 San Jose-27 SCVURPPP-108,110	None.
San Jose-27	C.8.e.ii	There are likely to be other influences of trash (homeless encampments, illegal dumping, etc.) within a 300ft stretch of the outfall.	Please see the response to the following combined comment above, regarding the time allotted to Permittees to find qualifying sites that are not (to the extent possible) complicated by non-MS4 sources: ACCWP-a8 SMCWPPP-14,15,165,167,171 San Jose-27 SCVURPPP-108,110	None.
Solano-7	C.8.e.ii	This comment goes beyond the requests made by SCVURPPP-109 and SMCWPPP-166 (to include language acknowledging the need for permits for the implementation of the direct trash monitoring methods), and requests that language be included to prompt the convening of an additional workgroup to expedite permitting for end-of-pipe or in-stream devices used for trash	We agree with this suggestion, but we believe it would be most efficient to include permitting discussions in the Technical Advisory Group (TAG) rather than recommending/requiring a second workgroup. If Permittees wish to meet separately from the TAG to spend more time on permitting discussions, with or without participation by Water Board staff, with or without participation by other permitting agencies	We have added the topic of permitting as one of the tasks for the Technical Advisory Group.

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		<p>monitoring. It explains that this could significantly reduce the time needed to obtain permits (and may even slightly reduce the cost associated with those permits). It provides some estimates of the timeframe for receiving permits from different agencies.</p>	<p>(e.g., CDFW, Corps), then of course they are free and in fact encouraged to do so. Water Board staff will make ourselves fully available to participate in any permitting discussion/meeting/coordination/etc.</p>	
SMCWPPP-169	C.8.e.ii.(3)	<p>The TO has a footnote reference (32) after "riverine quantitative tally method" but there is no footnote text to go with the reference.</p> <p>Remove footnote reference or add footnote text.</p>	<p>That footnote is included earlier in the Tentative Order. The Tentative Order uses the same footnote numbers for recurring footnotes, which are also known as "cross-references" or "cross-referenced footnotes."</p>	None.

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SCVURPPP-110 SMCWPPP-167	C.8.e.ii.(3)	<p>The use of trash booms with a skirt that extends to the bottom of the water column, seines, or other equivalent in-stream devices should not be used during storm events because they could cause flooding in adjacent upland areas. In practice, trash booms are generally removed during the wet season or when storm events are forecast.</p> <p>Remove this monitoring method or revise to remove language about using these methods during storm events. The MRP should not encourage monitoring methods that pose a potential threat to lives and property in the vicinity of the monitoring station.</p>	See Master Response Identifier C.8.e-5.	Revised as indicated in Master Response Identifier C.8.e-5.

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SMCWPPP-168	C.8.e.ii.(3)	<p>It is uncertain whether the direct trash boom method and the indirect monitoring methods (i.e., RWTA) to be applied upstream and downstream of individual outfalls will answer the Management/Monitoring Questions. The indirect RWTA was not designed to measure the amount of trash coming from the MS4 at individual outfalls. Nor have trash booms been used for this purpose. Therefore, the TO is prescribing an extensive and expensive monitoring program which may not achieve the desired goals. These methods should be beta tested for the intended Management/Monitoring Questions prior to full-scale implementation.</p> <p>Significantly reduce the trash monitoring level-of-effort so that the methods can be pilot tested for their ability to address the Management/Monitoring Questions.</p>	<p>The Provision includes monitoring questions that will generate data that will answer the management questions.</p> <p>It is true that certain methods (direct and in-stream) are likely to do a better job of answering the management questions than other methods (indirect). However, since we are removing the possible use of indirect on-land methods in lieu of direct monitoring of MS4 outfalls and receiving waters (in-stream), this comment is largely no longer relevant. The on-land methods are still allowed (in fact, encouraged), but not as a replacement for the direct monitoring required at MS4 outfalls and in receiving waters, instead, as a supplement to those efforts, in order to provide a synoptic perspective of trash loading.</p> <p>If, during the Permittees' implementation of C.8.e during MRP 3, they develop recommendations for revisions to C.8.e to improve the efficacy of the Trash Monitoring program, to better address the specified Management Questions, those revisions can be considered for a subsequent Permit term (e.g., MRP 4).</p>	<p>The level of effort has been reduced, because of the elimination of the potential use of the indirect trash monitoring methods.</p> <p>In-stream monitoring has been dislocated from MS4 outfall monitoring, and will be a pilot project rather than a full fledged monitoring program; the Permittees will have 2 years before they have to start in-stream monitoring, and will have less in-stream sites to monitor at.</p>

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				Please see the proposed revision for the following combined comment, above: ACCWP-a8 SMCWPPP-14,15,165,167,171 San Jose-27 SCVURPPP-108,110
SMCWPPP-170	C.8.e.iii	Comment notes that this is a new requirement.	Noted.	None.
ACCWP-a8,44 CCCWP-45 Oakland-18 SMCWPPP-14,15,16,172,178	C.8.e.iii	Because there may not be enough qualifying storm events to sample in a given year (e.g., due to drought), make the following change: eliminate annual minimums, and instead prescribe only the total number of samples that must be collected by the end of the 5-year Permit term, and also generally reduce the required number of (wet weather) sample events because of concerns about cost and staffing and qualifying storm events.	See Master Response Identifier C.8.e-6.	Included language allowing the Permittees to certify (under penalty of perjury) in their Annual Progress Report that there were not enough qualifying storm events to sample in the preceding water

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		SMCWPPP specifically requests, for each site, that the minimum required number of monitoring events be reduced from 15 over the 5-year permit term (i.e., 3/year for 5 years) to 9 (equivalent to 3/year for 3 years).		year, in which case the Permittees would be required to make up those samples in the subsequent (upcoming) water year.
CCCWP-45,46,108 Oakland-18,19 ACCWP-a8,45 SCVURPPP-7,109 SMCWPPP-14,19,166,171,182,183,214 Solano-7 MRP 3 Testimony Hearing Transcript, October 12, 2021, Mitch Avalon, CCCWP – Page 74 (Line 16-25), 75 (Line 1-5)	C.8.e.iii & C.8.e.v	Delay submittal of the Trash Monitoring Plan from September 30, 2022, to July 1, 2023 (or to September 30, 2023). Delay the start date for Trash Monitoring from October 1, 2022, to October 1, 2023. Otherwise, Permittees will not have enough time to find sites, set up logistics, develop the Trash Monitoring Plan and solicit/incorporate feedback from the TAG, and secure all necessary permits. Permittees can't start working on these items prior to adoption of the final Permit, because prior to adoption those items are subject to change. SMCWPPP-182 suggests that, in the alternative to pushing back the submittal date of the Trash Monitoring Plan, it could just be eliminated, given how prescriptive	See Master Response Identifier C.8.e-7.	Change the submittal date of the Trash Monitoring Plan to July 31, 2023, the start date for MS4 outfall monitoring to October 1, 2023, and the start date for in-stream monitoring to October 1, 2024.

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		it is. SMCWPPP-183 requests that the requirement to solicit input from the TAG and others be removed if the submittal of the Trash Monitoring Plan is not delayed. SMCWPPP-214 requests that, if any of the dates in Provision C.8.e are changed, the Fact Sheet is revised accordingly.		

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ACCWP-a8,44 CCCWP-38,39,40,41,45 Oakland-18 SCVURPPP-5,6,7,109 SMCWPPP-14,15,16,166,168,173,174,175,176,177 San Jose-27 Solano-7	C.8.e.iii.(2)	<p>Eliminate (or revise) C.8.e.iii.(2), so that if Permittees use indirect trash monitoring methods, they have the same numbers of sites and monitoring events as if they were to use direct methods. Permittees will likely mostly use indirect methods because it will be challenging to find outfalls at which they can use direct methods, because many outfalls will be unsafe and inaccessible to monitor directly, and because the Permittees won't have enough time to procure the necessary permits for direct methods (some comments such as CCCWP-45 and SCVURPPP-109 posit that it may not even be possible, regardless of timeline, to get permits for certain end-of-pipe or in-stream devices). Another reason for eliminating C.8.e.iii.(2) is that, if Permittees mostly use indirect methods, implementation costs will be much higher because of the 12:1 site ratio, and so eliminating C.8.e.iii.(2) will make the implementation of indirect methods roughly equivalent to the implementation of direct methods, and will overall reduce the MRP 3</p>	See Master Response Identifier C.8.e-2.	<p>Removed C.8.e.iii.(2).</p> <p>In the Fact Sheet, acknowledged that Permittees will need to secure permits for MS4-outfall and in-stream monitoring sites.</p> <p>Otherwise, revised C.8.e as indicated.</p> <p>See the proposed revision for the following combined comment, above:</p> <p>ACCWP-a8 SMCWPPP-14,15,165,167,171 San Jose-27 SCVURPPP-108,110</p>

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		<p>monitoring costs to a level closer to the MRP 2 monitoring costs. There may not be enough municipal and/or contracted staff available to sample all of the sites and storm events required by C.8.e.iii.(2), if indirect methods are used. There may not be enough qualifying sites at which to use the indirect methods, if C.8.e.iii.(2) is maintained as-is. The Fact Sheet does not provide sufficient justification for the 12:1 site ratio. SCVURPPP-109 and SMCWPPP-166 request the inclusion of language that acknowledges the need for permits to install in-stream monitoring devices and/or to retrofit outfalls for the installation of netting devices, and should allow for delays in monitoring implementation as a result.</p>		

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SMCWPPP-179	C.8.e.iii.(3)	<p>There is a requirement to conduct annual monitoring of a storm event that is forecast to be greater than the one-year, one-hour event (i.e., full capture design standard). By definition, a "greater than the one-year, one-hour event" is unlikely to occur each year.</p> <p>Change the requirement so that the one-year, one-hour event is monitored just once during the permit term. This is a more achievable goal.</p>	<p>The language uses the word "should." If such a storm does not occur, Permittees cannot be considered to have violated C.3.e.iii.(3). The purpose of this language is to ascertain, to the extent possible (weather/climate permitting), the relative performance of trash controls during storm events greater than the design storm, which are likely to be bypassed by full trash capture devices, in particular.</p>	None.
Baykeeper – 17	C.8.e.ii	<p>With respect to trash monitoring, Baykeeper recommends the Regional Board require monitoring under Tier 2. Those Permittees who may have difficulty implementing monitoring methodologies under Tier 2 should be allowed to request an exemption from drone monitoring requirements and be permitted to continue trash monitoring using Tier 1 methodologies.</p> <p>Alternatively, if the Regional Board does not want to require Tier 2 methodologies, it should alter the Tier 1 monitoring approach to include adaptive management.</p>	<p>Much of this comment has been addressed through changes in C.8.e, which have been explained in responses to earlier comments (see above). In particular, there is no longer a tier of allowed methods for each trash monitoring component. For MS4 outfall monitoring, data collection must be direct; indirect monitoring of adjacent on-land areas cannot replace that direct monitoring. Likewise, for in-stream monitoring, only direct methods are allowed.</p> <p>Regarding the suggestion to compel on-land monitoring, please see the response to SMCWPPP-168.</p> <p>Regarding the recommendation to require monitoring at designated trash hot spots and</p>	<p>Please refer to the response to the following combined comment, above, regarding changes made to Trash Monitoring:</p> <p>ACCWP-a8,44 CCCWP-38,39,40,41,45 Oakland-18 SCVURPPP-5,6,7,109 SMCWPPP-</p>

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		<p>Additionally, the Regional Board should consider adding to Draft MRP 3 a trigger for monitoring under Tiers 2, 3, and 4 for persistent trash hot spots. Persistent trash hot spots deserve increased scrutiny to inform the sources and pathways of the trash, and identify appropriate management responses (e.g., product bans or increased cleanups of known dumping grounds). If Permittees are still unable to control trash from their hot spots after 10 years of trash control requirements, then the Regional Board should require them to implement more rigorous trash monitoring so Permittees will collect useful data to inform successful management of their trash.</p>	<p>compel additional management actions if the monitoring reveals that concurrent management actions are insufficient, that is built into the framework of the direct discharge control program described in C.10.f.ii. Additionally, the priority of this Permit term is not to confirm known trash hot spots, but rather to assess the efficacy of the approved trash control methods/devices and of the trash accounting framework in C.10.</p> <p>Please refer to the response to the following combined comment, above, regarding changes made to Trash Monitoring:</p> <p>ACCWP-a8,44 CCCWP-38,39,40,41,45 Oakland-18 SCVURPPP-5,6,7,109 SMCWPPP- 14,15,16,166,168,173,174,175,176,177 San Jose-27 Solano-7</p>	<p>14,15,16,166,168,173,174,175,176,177 San Jose-27 Solano-7</p>
SMCWPPP-180	C.8.e.iv	Comment notes that this is a new requirement.	Comment noted.	None.
SMCWPPP-181	C.8.e.v	The reporting requirements for Trash Monitoring should be included with Provision C.8.h Reporting, which is where all the other C.8 reporting requirements are contained.	We agree and will make this change. Trash Monitoring reporting was purposefully included within C.8.e in the Tentative Order to facilitate the Permittees'/public's review, and our intention was always to move it to C.8.h for the revised Tentative Order.	Moved C.8.e.v into C.8.h.

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SMCWPPP-185,186	C.8.e.v.(2)	<p>The TO requires that Permittees collectively submit Annual Progress Reports on Trash Monitoring, and a comprehensive Trash Monitoring Report with the Integrated Monitoring Report. With the dissolution of BASMAA, regional reporting will be challenging.</p> <p>Remove the language about collective reporting.</p>	<p>This is a regional Trash Monitoring Program with regional representativeness, and as such, the reporting must be collective reporting.</p> <p>Though BASMAA is dissolved, the Permittees can work together on this reporting via the TAG, BAMSC, and/or other means.</p>	None.
CCCWP-108	C.8.e.v.(2)	<p>Move back initial submittal date of trash monitoring annual progress reports to 3/31/2024, to align with requested delay of beginning trash monitoring to 10/1/2023.</p>	<p>We agree that it does not make sense for the Permittees to submit an Annual Progress Report in the March 2023 UCMR, because Trash Monitoring will not start until later that year. Predictions about monitoring during the upcoming water year won't be possible, because the Trash Monitoring Plan won't yet be completed.</p>	<p>Clarified that the first Annual Trash Monitoring Progress Report will be submitted with the 2024 UCMR.</p>

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ACCWP-46 Oakland-20 CCCWP-20 SMCWPPP-184 Solano-8	C.8.e.v.(e)	Permittees would be challenged to perform power analysis for the Trash Monitoring Plan because there is not enough available trash data of the appropriate kind or consistency in methods used for the data, because trash data in general may not have normal or lognormal distributions, etc. Confusion was expressed by some commenters about which monitoring schedule the Permittees would comply with, whether the schedule in Table 8.e.2 or the schedule suggested by the power analysis.	See Master Response Identifier C.8.e-8.	Removed from C.8.e.v.(1)(e) the requirement that Permittees perform a power analysis. Towards the end of the Permit term, Water Board staff may perform power analysis on trash monitoring data collected to-date, to inform changes (if any) to the monitoring schedule in MRP 4.
MRP 3 Testimony Hearing Transcript, October 12, 2021, Chris Sommers, SCVURPPP – Page 266 (Line 2-10)	C.8.e.ii	The last option is to basically do the methodology we did in MRP 2.0, and to do it upstream and downstream of the outfall. The biggest challenge here is whether or not we can actually detect. We have -- is there too much noise in the data to be able to detect a change? The idea is to compare that control site to the test site, the	Because we are no longer allowing the use of the on-land assessment methods to indirectly characterize in-stream conditions, this comment is no longer relevant. Please refer to other responses, above.	Please refer to other proposed revisions, above.

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		difference between the two would be attributable to the outfall.		
MRP 3 Testimony Hearing Transcript, October 12, 2021, Ian Wren, Baykeeper – Page 293 (Line 18-25)	C.8.e	We recognize the monitoring challenges discussed by Mr. Sommers, but the current evaluation simply is not working for anyone. A scalable and cost effective program, measured at designated hot spots is possible and resources can be focused on implementing control measures, and direct discharge controls where watershed-based approaches are inappropriate.	Comment noted.	None.
Baykeeper- 15d	C.8.f	4. Provision C.8.f Must Be Revised to Require Stormwater Sampling and Clarify the Role of Sediment Sampling for Pollutants of Concern (“POC”) Table 8.1, POC Monitoring Methods, in Provision C.8.f.ii requires various monitoring methods for five management questions. There are several monitoring methods listed for each management question, but none are mandatory – Permittees will be able to pick and choose their monitoring methods, which is problematic to Baykeeper. Monitoring methods to answer management question 1 allows	Please see Master Response Identifier C.8 - 2.	None.

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		<p>Permittees to collect samples of urban stormwater runoff or bedded sediments – it does not require both. Sediment samples can be collected year-round, and need not reflect wet weather conditions. There also appear to be two options for collecting urban stormwater runoff samples: 1) through MS4s or receiving waters; and 2) at outfall locations. Draft MRP 3 is a stormwater permit, thus monitoring requirements must indicate whether Permittees are complying with Draft MRP 3’s discharge prohibitions and receiving water limitations, which presumably requires sampling stormwater. As discussed above, in order to assess permit compliance, receiving water monitoring must be accompanied by outfall monitoring to determine whether discharges are causing or contributing to exceedances of applicable water quality standards. Thus, the Regional Board must revise Table 8.1 to mandate Permittees collect stormwater samples from MS4 outfalls. Further, it is unclear to Baykeeper how sediment sampling can be</p>		

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		<p>used to show compliance with water quality standards and raises the following questions: 1) what standards will sediment samples be evaluated against; 2) will sediment samples be compared to sediment quality objectives that have yet to be enacted; and 3) will sediment samples be evaluated to determine whether discharges are causing or contributing to an exceedance of an applicable water quality standard? While Table 8.3, POC analytes and analytical methods, includes laboratory analytical methods for sediment samples, this is not the same as standards to compare the data to. Data collection only for sake of collection is not a reasonable use of limited resources. If sediment sampling remains in Provision C.8.f, then the Regional Board must revise these requirements to clarify how sediment sampling will be used to determine compliance with Draft MRP 3.</p> <p>Again, Baykeeper objects to Provision C.8.f.iii which allows for POC monitoring to be conducted countywide. As discussed above, monitoring must be capable of</p>		

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		assessing an individual Permittee's compliance with the permit, and Draft MRP 3 must be revised accordingly.		
ACCWP-47	C.8.f.iii	To increase flexibility, allow monitoring for copper and emerging contaminants to address information needs associated with Monitoring Types 3 (provide support for future or existing management actions) and Monitoring Type 4.	Making this change is not necessary. The primary management question for which we need copper and emerging contaminant data is related to loads, concentrations, and presence or absence. If Permittees design data collection in such a fashion that the collected data provide information relative to other management questions (for which data are not explicitly required), this is welcome. However, it is not necessary to broaden the list of applicable management questions in order for the Permittees to design their sampling program to accomplish this.	None.
ACCWP-48	C.8.f.iii	The TO puts a limit of 25% of samples for any pollutant that can be used to satisfy requirements for multiple monitoring categories for that pollutant. This limit does not recognize that the majority of samples indeed address multiple information needs. It limits flexibility in monitoring programs and increases costs. Remove the limit on how many information needs an individual sample can address.	Please see the response to comment SMCWPPP-192.	See response to comment SMCWPPP-192.
ACCWP-49	C.8.f.iii	Table 8.2, footnote d, requires that Total Organic Content (TOC) be	TOC is listed in a row qualified as "as required." As such, there is no requirement to	None.

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		collected concurrently with PCBs data that should be normalized to TOC. Permittees have not normalized to PCBs to TOC for many years as, previously, it was not found to improve analyses or understanding. Remove this requirement.	collect TOC if a Permittee does not find it useful.	
ACCWP-50	C.8.f.iii	Update Table 8.3 to include analytical methods for all pollutants for which monitoring is required.	We have updated the table to include the analytical methods as appropriate.	We have updated the table to include the analytical methods as appropriate.
SMCWPPP-191	C.8.f.iii	<p>Although C.12 (PCBs) increases the level of effort for source property identification, C.8.f allows fewer PCBs samples to count towards this information need by increasing the effort devoted to information needs loads and trends.</p> <p>Change the minimum number of samples for each monitoring type for PCBs to 8 per type (similar to MRP 2).</p>	The increased effort for monitoring types 4 and 5 is intentional and appropriate given the needs to support modeling and trends assessment. The required minimum samples for monitoring types 1-5 total 56 of the 65 or 75 required PCBs samples. The programs are free to allocate the remaining samples to source identification if that is what they choose. Additionally, there may be some samples that can provide information on both source identification and other monitoring needs. Last, the monitoring efforts required for source identification under C.12 are independent from monitoring requirements under C.8 and neither should be thought of as constraining the other. In other words, the fact that “credit” is not provided for a	None.

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Comment No.	Provision	Comment	Response	Proposed Revision
			sampling effort associated with finding source properties does not obviate the requirement to find source properties.	
SMCWPPP-192	C.8.f.iii	The TO puts a limit of 25% of samples for any pollutant that can be used to satisfy requirements for multiple monitoring categories for that pollutant. This limit does not recognize that the majority of samples indeed address multiple information needs. It limits flexibility in monitoring programs and increases costs. Remove the limit on how many information needs an individual sample can address.	The intent of this language is to encourage programs to fine tune their monitoring toward answering a monitoring question and not just collecting a sample and claiming that it satisfies different information needs. This monitoring program for pollutants of concern is already very flexible, but its integrity and defensibility depend on the programs collecting data that truly address the unique management questions. We further point out that the required minimums constitute only 56 of the required 65 or 75 total samples for PCBs. The type of sampling required to identify source areas not always guaranteed to yield the best information for calculating loads or trends. These are distinct information needs that should be thought about independently. The permit allows for some possibility of overlap (25%), but going beyond this or even eliminating the limitation is likely to degrade the quality of information because monitoring will not be tuned to an information need.	None.
SMCWPPP-193	C.8.f.iii	Reduce monitoring requirements elsewhere in C.8 to mitigate for the increased costs associated with C.8.d CEC monitoring.	The monitoring requirements, relative to MRP 2, have been reduced for the number of samples collected by the San Mateo program for PCBs, mercury, and copper. Nutrient monitoring requirements have also been removed. The Water Board is mindful of cost	See revisions to C.8.f.

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Comment No.	Provision	Comment	Response	Proposed Revision
			<p>concerns, but it is required to impose monitoring requirements and is not required to cap total monitoring costs to those of MRP 2.</p> <p>The total number of samples for PCBs and copper (in Table 8.2) have been reduced by five samples to offset the addition of monitoring to assess compliance with receiving water limits (RWL) in response to Baykeeper - 11. Five samples will be collected by each program for the RWL compliance determination. The purpose of the RWL monitoring is described in C.8.f (Table 8.1 and 8.2), and the reporting requirements are stated in C.8.h.iv(2).</p>	
CCCWP-47	C.8.f.iii.	To increase flexibility, allow monitoring for copper and emerging contaminants to address information needs associated with Monitoring Types 3 (provide support for future or existing management actions) and Monitoring Type 4.	Please see the response to comment ACCWP-47.	See response to comment ACCWP-47.
CCCWP-48	C.8.f.iii.	The TO puts a limit of 25% of samples for any pollutant that can be used to satisfy requirements for multiple monitoring categories for that pollutant. This limit does not recognize that the majority of samples indeed address multiple information needs. It limits	Please see the response to comment SMCWPPP-192.	See response to comment SMCWPPP-192.

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Comment No.	Provision	Comment	Response	Proposed Revision
		flexibility in monitoring programs and increases costs. Remove the limit on how many information needs an individual sample can address.		
CCCWP-49	C.8.f.iii.	Table 8.2, footnote d, requires that Total Organic Content (TOC) be collected concurrently with PCBs data that should be normalized to TOC. Permittees have not normalized to PCBs to TOC for many years as, previously, it was not found to improve analyses or understanding. Remove this requirement.	TOC is listed in a row qualified as "as required." As such there is no requirement to collect TOC if a Permittee does not find it useful.	None.
CCCWP-50	C.8.f.iii.	Update Table 8.3 to include analytical methods for all pollutants for which monitoring is required.	Table 8.3 has been updated with additional analytical methods.	Updated Table 8.3.
SMCWPPP-194	C.8.f.iv	Update Table 8.3 to include analytical methods for all pollutants for which monitoring is required.	Table 8.3 has been updated with additional analytical methods.	Updated Table 8.3.
SMCWPPP-195	C.8.g	Comment notes that an option was added to collaborate with CA Dept of Pesticide Regulation for data collection and analysis.	Comment noted.	None.

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Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-196	C.8.g.i	<p>1) Comment notes that in MRP 2, Provision C.8.g.i required the Fairfield Permittees to complete their samples by the end of the 5-year Permit period, while in the Tentative Order for MRP 3 they are required to complete their samples by the end of the 2023-2024 water year.</p> <p>2) C.8.g.i.(2) directs Permittees to sample at locations where toxicity could be likely, to coincide with bioassessment sites, to coincide with creek restoration sites, or to resample a location where toxicity has been found in the past. However, there no longer is bioassessment in C.8.d that this monitoring could be coincident with.</p>	<p>1) Comment noted.</p> <p>2) We agree that that clause should be removed from the sentence, because although Permittees may use old bioassessment data to inform site selection for toxicity monitoring, the existence of bioassessment data alone should not drive site selection for toxicity monitoring.</p>	<p>1) None.</p> <p>2) Removed "...to coincide with bioassessment sites" from C.8.g.i.(2).</p>
Solano-2	C.8.g.i	<p>Requires both Fairfield-Suisun AND Vallejo to conduct sampling while the other Permittee programs are considered as single units. By coming together under the MOA, we request that only ONE of these samples needs to be collected for the Solano Permittees for consistency/equity with the other programs. Edit requested on top of pg. C.8-19.</p>	<p>We agree with the requested change.</p>	<p>Revised the samples required of Solano County Permittees in the table in C.8.g.i.(3) from 2 to 1.</p>

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Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-197	C.8.g.ii	<p>1) Comment notes that in MRP 2, C.8.g.ii required the Fairfield Permittees to complete their samples by the end of the 5-year Permit period, while in the Tentative Order for MRP 3 they are required to complete their samples by the end of the 2023-2024 water year.</p> <p>2) C.8.g.ii.(2) directs Permittees to sample at locations where toxicity could be likely, to coincide with bioassessment sites, or to resample a location where toxicity has been found in the past. However, there no longer is bioassessment in C.8.d that this monitoring could be coincident with.</p>	<p>1) Comment noted.</p> <p>2) That clause will be removed from the sentence.</p>	<p>1) None.</p> <p>2) Remove "...to coincide with bioassessment sites" from C.8.g.ii.(2).</p>
Solano-3	C.8.g.ii	<p>Requires both Fairfield-Suisun AND Vallejo to conduct sampling while the other Permittee programs are considered as single units. By coming together under the MOA, we request that only ONE of these samples needs to be collected for the Solano Permittees for consistency/equity with the other programs. Edit requested on middle of pg. C.8-21: 1</p>	<p>We agree with the requested change.</p>	<p>Revised the samples required of Solano County Permittees in the table in C.8.g.ii.(4) from 2 to 1.</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-198	C.8.g.iii	The required reporting level for imidacloprid is changed from 0.05 ppb to 0.01 ppb. Indoxacarb is removed from list of pesticides.	Comment noted.	None.
SMCWPPP-199	C.8.g.iv	Comment states “No change.”	Comment noted.	None.
SMCWPPP-200	C.8.h	Comment states “See below.”	Comment noted.	None.
SMCWPPP-201	C.8.h.i	Comment notes that minor changes were made to reflect changes made in other subprovisions of C.8.	Comment noted.	None.
SMCWPPP-202	C.8.h.ii.(1)	The Regional Data Centers which upload the data to CEDEN prefer that the data is submitted in CEDEN format. Change the required data submittal format from SWAMP to CEDEN.	We disagree. The SWAMP format includes important information that the CEDEN format does not include. There are also tools available that perform the data format conversion automatically, so this does not need to be done by hand.	None.
SMCWPPP-203	C.8.h.iii	The requirements for this report were changed to reflect the changes to C.8. The requirement to include a statement of LID monitoring data quality is listed twice (1)(d) and (1)(g). Remove either (1)(d) and (1)(g) so that the requirement to include a	We have made the requested correction and edit.	Made the requested edit.

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Comment No.	Provision	Comment	Response	Proposed Revision
		statement of LID monitoring data quality is listed just once.		
SMCWPPP-204	C.8.h.iv	Comment notes a minor change to this Provision.	Comment noted.	None.
SMCWPPP-205	C.8.h.v	<p>MRP 3 requires the IMR submittal on March 31, 2026. This submittal date would include three years of data collection (WY 2023, WY 2024, WY 2025). MRP 2 required the IMR on March 31, 2020, which included four years of data collection (WYs 2016, 2017, 2018, 2019).</p> <p>The TO incorrectly states in C.8.h.v.(1)and C.8.h.v.(2) that the March 31, 2026, IMR submittal date would include four years of monitoring data. There are only three water years preceding March 2026 (WYs 2023, 2024, 2025).</p> <p>Furthermore, for LID monitoring, which does not begin until October 1, 2023 (i.e., WY 2024), the IMR would represent just two years of monitoring data.</p> <p>Change the IMR submittal date to</p>	<p>We have revised C.8.h.v.(1) to correctly state that the IMR will include data from the prior water year, which is the third water year of the Permit term. C.8.h.v.(2) has been removed from the Tentative Order (it has been combined with C.8.h.v.(1)), so there is no accompanying edit to make there.</p> <p>The comment incorrectly states that the IMR only analyzes data collected up until that point in the Permit term. The IMR analyzes all data collected since the previous IMR. Of course, Permittees will only report (in the IMR) on LID Monitoring and Trash Monitoring conducted during MRP 3, because those subprovisions were not included in MRP 2, however they must still analyze data from MRP 2 for Creek Status Monitoring and SSID Projects since the IMR submitted during MRP 2.</p> <p>We do not agree with the request to delay the IMR by an additional year. If we did that, the information in the IMR would be received</p>	Revised C.8.h.v.(1) as indicated.

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Comment No.	Provision	Comment	Response	Proposed Revision
		March 31, 2027, so that more data can be evaluated.	too late in the Permit term to inform changes to C.8 in MRP 4.	
SMCWPPP-206	C.8.h.v.(3)	<p>The TO requires that the IMR present a comprehensive analysis of all data collected since the previous IMR; however, monitoring requirements in the TO are dramatically different from those in MRP 2. The MRP 3 IMR should simply require comprehensive analysis of all data collected since the start of MRP 3. Inclusion of data types that are no longer collected under MRP 3 (Creek Status, SSID) represents a moderate level-of-effort with uncertain value.</p> <p>Change this subprovision to require comprehensive analysis of data collected pursuant to C.8 in MRP 3.</p>	We do not agree that this would be appropriate for all subprovisions in C.8. However, it is reasonable to not require Permittees to report on Creek Status Monitoring conducted subsequent to the submittal of the MRP 2 IMR, and have made a responsive edit.	Revised as indicated.

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Provision C.8. – Water Quality Monitoring**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-208	C.8.h.v.ii	Comment notes minor changes to this Provision.	Comment noted.	None.
CCCWP-109	C.8.h.vi	Remove requirement to submit Comprehensive Bioassessment Final Report.	We have not made the change as no justification is provided for the request. Please see the response to SMCWPPP-207, below.	Please see the proposed revision for SMCWPPP-207, below.
SMCWPPP-207	C.8.h.vi	This is a requirement for a regional report which is difficult to fund and organize without BASMAA. BASMAA already conducted a regional analysis of the first five years of bioassessment data (2012-2016) and prepared a report and Factsheet on the findings. SMCWPPP already conducted a countywide analysis of the first eight years of bioassessment data (2012- 2019) in the MRP 2 IMR and reached similar conclusions as the regional study. It is unlikely that adding data to the prior regional or countywide bioassessment reports will result in new findings. Furthermore, with the dissolution of BASMAA, there is no longer a regional fiscal agent to facilitate shared report development. Remove this requirement.	Though BASMAA is dissolved, the Permittees can work together on this reporting via the TAG, and/or via BAMSC, and/or via other means. It is appropriate to include an analysis of all of the bioassessment data, to confirm that the results and conclusions generated by those data are the same as the results and conclusions that were included in the prior regional analysis. Otherwise, bioassessment monitoring between 2017 and 2021 will not be sufficiently evaluated (contrary to the comment, these water years were not included in the MRP 2 IMR), together with the other bioassessment data. Permittees spent multiple years to develop a statistically robust sampling design for bioassessment data that allowed for a defensible region-wide and county-specific analysis. All data collected according to that design per the permit requirements should be analyzed in that manner to take advantage of that effort and continued site tracking and cross county coordination. With double the samples as	Delayed the submittal date by one year.

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			<p>compared to the number analyzed in the BASMAA fact sheet, trends may change, and error bars from the past analysis will be reduced. In the past, some county programs had too few non-urban data points which may change with these additional sample sizes.</p> <p>All of that said, we agree it is reasonable to delay the submittal of this report. We have delayed it by one year, from March 31, 2023, to March 31, 2024. We do not want to delay it further than that, past the stop date of the bioassessment monitoring, and think this is a reasonable compromise.</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.9. – Pesticides Toxicity Control**

Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP-111 SMCWPPP-215	C.9	Addition of neonicotinoids to the list of pesticides of concern to water quality increases the Permittees' reporting burden.	Comment noted. Neonicotinoids are a class of urban-use pesticide of significant concern to receiving water quality due to toxicity (“New-generation pesticides are prevalent in California's Central Coast streams,” February 2022, https://doi.org/10.1016/j.scitotenv.2021.150683). Their inclusion in the MRP’s list of urban-use pesticides of concern to water quality is therefore both merited and necessary, and is worth the cost of an incremental increase in the Permittees’ reporting burden.	None.
ACCWP-51	C.9	Remove diazinon and chlorpyrifos from the list of urban-use pesticides of concern to water quality because they are no longer approved for urban use.	<p>We disagree. First, even though diazinon and chlorpyrifos are no longer approved for urban use, they are still being found in receiving waters, and there may still be some loading to receiving waters from ongoing use, and we anticipate that there will be some loading to receiving waters (from legacy and/or ongoing use) in the near term.²²</p> <p>Second, the retention of diazinon and chlorpyrifos in the list of urban-use pesticides of concern to water quality does not create additional burden for the Permittees because there aren’t corresponding monitoring requirements for diazinon and chlorpyrifos.</p>	None.

²² https://www.waterboards.ca.gov/water_issues/programs/swamp/spot/docs/spot_10_year_report.pdf

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Provision C.9. – Pesticides Toxicity Control**

Comment No.	Provision	Comment	Response	Proposed Revision
			Third, the Diazinon and Pesticide-Related Toxicity in Urban Creeks TMDL references both diazinon and chlorpyrifos as being urban-use pesticides of concern to Bay Area water quality.	
SMCWPPP-216	C.9.a	Reiterates requirement.	Comment noted.	None.
ACCWP-52	C.9.a.i	Revert to language in MRP 2 by changing "...toxicity..." to "...pesticide-caused toxicity..."	The Tentative Order already reflects an appropriate edit. This comment refers to text in the Administrative Draft. The text in the Tentative Order was changed to: "...to ensure their use of pesticides does not cause or contribute to pesticide-related toxicity in receiving waters." "Pesticide-related toxicity" is the phrasing used in the Diazinon and Pesticide-Related Toxicity in Urban Creeks TMDL.	None.
CCCWP-51	C.9.a.iii.(3)	Don't require submittal of links to IPM policies and ordinances in the 2023 Annual Reports. Instead, require them to only be provided to the Water Board on request.	We disagree. The one-time submittal of online links to IPM policies and ordinances in the 2023 Annual Reports facilitates Water Board staff's review, helping to ensure effective programs are in place and being implemented. It also increases Permittees' transparency both to the Water Board and the public. Finally, it is a fairly easy task, with subsequent reporting required only if the web links change.	None.
CCCWP-52 ACCWP-53	C.9.c.i	Do not require Permittees to verify that contractors hired to perform IPM are acting in accordance with Permittees' IPM policies and/or	We disagree. C.9.c.i would require Permittees to "periodically monitor" contractors they contract with to work on municipal properties, to ensure those contractors are practicing IPM. In their	None.

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Provision C.9. – Pesticides Toxicity Control**

Comment No.	Provision	Comment	Response	Proposed Revision
		ordinances, as it is an undue burden.	annual reports, Permittees must then describe how they verified contractor compliance and any corrective actions taken. This is a flexible and reasonable burden to ensure that Permittee contractors are implementing IPM. To the extent Permittees rely on contractor or other third party actions to comply with the MRP, the Permittees are responsible for those actions and must monitor and verify them.	
SCVURPPP-112 SMCWPPP-217	C.9.e.iii	Remove the requirement in C.9.e.iii that Permittees shall submit an evaluation of the "effectiveness of outreach efforts required by...C.9.e" in their 2026 Annual Reports. That evaluation is already required in C.9.g.iii.	We agree that this reporting is potentially redundant and have made the requested change as described below. C.9.g focuses on pesticide source control actions, and C.9.e explicitly focuses on public outreach. We have removed the potentially duplicative reporting from C.9.e. While public outreach is implicitly included in pesticide source control actions, to ensure it is clear the C.9.g.iii evaluation includes it, we have revised C.9.g.iii so that it is clear that it includes what is being removed from C.9.e.iii, which is: an assessment of the effectiveness of outreach efforts required by C.9.e.	Revised as indicated.
SMCWPPP-218	C.9.g.iii	Notes that the subprovision exists and does not request any changes.	Comment noted.	None.

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Provision C.10. – Trash Control**

Comment No.	Provision	Comment	Response	Proposed Revision
Santa Clara – 2 Oakland – 21,25 SMCWPPP – 22, 50, 235 CCCWP – 63 Palo Alto – 5 Los Altos – 3 San Jose – 31 SCVURPP P – 119 San Mateo County -17 Solano – 16 ACCWP – 59 SCVWD – 4	C.10.b.v	<p>Continue to allow up to 10% reduction value for existing and new jurisdiction-wide source controls through the term of the permit and beyond.</p> <p>Through the adoption and enforcement of source control bans, Permittees have prevented low trash generating areas from morphing into moderate trash generating areas, reduced the likelihood of trash entering receiving waters from wind or litter, and prevented the plugging of trash capture devices installed in storm drain inlets. Continue using the same accounting methods and credits used in MRP 2 in MRP 3.</p>	See Master Response Identifier C.10.b – 1	None.
San Jose – 4, SCVURPP P – 10 Watershed Project – 3	C.10.b.v C.10	Revise C.10.b.v, C.10.f, and C.10.f.i to retain maximum reduction value for direct discharge programs to at least 15% through and beyond the new permit term. Also, allow Additional Creek and Shoreline	<p>For response to retention of source control credits and offsets for creek and shoreline cleanups, see Master Response Identifiers C.10.b – 1 and C.10.f – 1.</p> <p>For Direct Discharge Programs: We acknowledge the benefits of a robust</p>	None.

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Provision C.10. – Trash Control**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>Cleanups offsets to continue to count as 10% towards the 100% trash reduction goal and beyond the new permit term.</p>	<p>Direct Discharge Control Program (DDCP) as an interim tool to addressing the discharges of trash to receiving waters. As such, C.10.f.ii allows Permittees with an approved DDCP to continue to offset up to 15% of their trash load reduction until June 30, 2025, provided they control trash after it has already impacted receiving waters, and by taking steps to permanently reduce direct discharges of trash through implementation of long-term programs to reduce the unsheltered homeless population. Working towards meeting the need for housing and associated services for those experiencing unsheltered homelessness may contribute to a decrease in the number of people experiencing homelessness, and as such, a consequent decrease in the presence of homeless encampments along creeks and riparian areas where direct discharges may be occurring. However, as stated in the MRP 2 Fact Sheet (attachment A-99), offsets available through implementation of the DDCP are interim and were forecast to be removed during the next permit term (MRP 3). Currently, only five Permittees have an approved DDCP and are claiming the 15 percent offset. Allowing offsets to continue beyond June 30, 2025, would mean allowing a corresponding percentage of a Permittee's moderate</p>	

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Provision C.10. – Trash Control**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>and/or high trash generating area to continue to remain uncontrolled. The goal of C.10 is for Permittees to achieve compliance with the trash discharge prohibition through meaningful and quantifiable trash reduction via engineering controls such as the installation and operation of full trash capture devices, or the implementation of other measures equivalent to full trash capture (and verified via OVTAs). This ultimate goal cannot be achieved if offset credits through the Direct Discharge Control Program continue to be an acceptable means of achieving compliance.</p>	
Dublin - 3	C.10.a	<p>Extend the current offsets and credits in MRP 3 through the dates of the 90% and 100% reduction targets. However, reducing the total allowable offsets and credits from the current 35% to a maximum of 25% towards meeting the 90% and 100% reduction targets would be an acceptable compromise</p>	<p>See Master Response Identifiers C.10.b – 1 and C.10.f – 1.</p> <p>See response to San Jose - 4 above for additional discussion on DDCP offsets.</p> <p>We do not agree that extending the credits through the 90% and 100% trash load reduction targets, or allowing Permittees to continue claiming at least 25% of their load reductions in credits, would be an acceptable compromise. Offsets and credits are interim measures designed to help Permittees comply with trash reduction benchmarks by controlling trash</p>	None.

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Provision C.10. – Trash Control**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>at the source and from direct discharges. As noted in the Master Responses, continuing to allow these credits and offsets gives Permittees an opportunity to double count and to continue to avoid reducing discharges from some moderate and high trash generating areas.</p> <p>In addition, we have already provided extensions. These offsets and credits were forecasted in the MRP 2 Fact Sheet to end when MRP 2 was reissued. However, these Source Control credits and offsets are still available until June 30, 2025, for new source control measures, creek and shoreline cleanups, and for the implementation of an approved direct discharge control program. As a result, Permittees can continue to receive credit as they work toward achieving compliance with the 100 percent reduction requirement. This is already an adequate compromise, in the Water Board's view.</p>	
San Mateo County -16, SCVURPP P- 9, Dublin – 1, ACCWP – 54,	C.10.a.i	The COVID-19 pandemic has significantly impacted operations, budgets, and staffing (and impacts will continue over at least the next few years), it	See Master Response Identifier C.10.a -1	None.

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Provision C.10. – Trash Control**

Comment No.	Provision	Comment	Response	Proposed Revision
<p>SCVURPP P – 113, 114, 123, SMCWPPP – 21, 219, 220, 240, Caltrans – 1,2, San Jose – 3, 28, CCCWP – 53, 54, Oakland - 22</p>		<p>is unrealistic to expect Permittees to maintain and accelerate progress towards the benchmarks at the same pace as prior to the pandemic.</p> <p>Extend the deadlines to achieve 90% and 100% trash reductions by at least two years each to July 1, 2025, and July 1, 2027, respectively. In addition, make the 90% trash reduction requirement a performance guideline (i.e., not mandatory), similar to the 60% goal in MRP 2. Adopting these recommendations will make the overall program more feasible and better support the planning for long-term trash reduction solutions and collaborative projects with Caltrans.</p> <p>In addition, extend additional time to achieve 100% to July 1, 2030, if Direct Discharge Control Plan is submitted.</p>		
<p>SCVURPP P – 11, 116 SMCWPPP – 223, Dublin – 2,</p>	<p>C.10.a.ii. (b)</p>	<p>Request that the requirement for municipalities to manage trash on all private properties (regardless of size) down to a level of low trash generation be</p>	<p>See Master Response Identifier C.10.a - 2</p>	<p>None.</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
Oakland & San Jose – 5, 30 SMCWPPP -23,52, ACCWP – 56, Oakland – 24, San Mateo County – 18, CCCWP - 60		removed. This provision is an expansion of the requirement in MRP 2 (i.e., focused on areas >10,000 sq. ft.) and is impracticable to achieve, especially in the timeframe required.		
SMCWPPP – 24	C.10.c	The following language in C.10.c is new to MRP 3, and not directly related to discharges from the municipal storm drain system, and should be removed: <i>"Flood management agencies must also implement trash control measures such as trash pickups and installation of trash receptacles, to control Moderate, High, and Very High trash generation areas within their jurisdiction including, but not limited to, parking lots, trailhead areas, and along recreational</i>	We disagree. C.10.c, requiring flood management agencies to implement trash control measures (such as trash pickups and the installation of trash receptacles) to control Moderate, High, and Very High trash generation areas within their jurisdiction (including demonstrating the effectiveness of these trash control measures through on-land visual trash assessments) is consistent with previous requirements and aligns with the overall objectives of the C.10 to prevent discharges of trash to receiving waters. These measures are appropriately required of flood management agencies, as they are	The word “full” has been removed from the following sentence in C.10.c: <i>“Flood management agencies must continue to implement requirements for</i>

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Provision C.10. – Trash Control**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p><i>paths and trails and demonstrate effectiveness of these trash control measures as specified in Provision C.10.b.ii."</i></p> <p>In addition, request that the word "trash full capture systems" in the first sentence of C.10.c be removed since the devices mentioned in this sub-provision aren't certified as full trash capture equivalent.</p>	<p>of any Permittee, when trash has the potential to discharge to the MS4 from an area with more than a low trash generation rate. The language gives examples of situations where that condition could be present and of controls that could help address those discharges.</p> <p>The request to remove the word "full" from the sentence "<i>Flood management agencies must continue to implement requirements for full trash capture systems, as specified in Table 10-1, below</i>" is reasonable and the edit has been made.</p>	<p><i>trash full capture systems, as specified in Table 10-1, below"</i></p>
Watershed Project - 5	C.10	Proposed amendments to the permit should be consistent with the statewide trash amendments that are currently being written.	Although there may be slight differences in these requirements since the MRP contains specific provisions relevant to the San Francisco Bay region, the tentative order and the statewide trash amendments are consistent.	None.
Save the Bay - 6	C.10	Save The Bay opposes the draft permit's approach to inlets on private land draining to permittees' storm drain systems. Not requiring trash control if there is a full trash capture device downstream of these areas would put streams and channels adjacent to private inlets at greater risk of direct discharge due to poor on-land trash maintenance. The order should	<p>We disagree.</p> <p>Consistent with the Trash Amendments, the MRP provides two approaches to meeting the prohibition on the discharge of trash: installation of full-trash capture devices or implementation of a combination of controls that achieve full trash capture equivalency. Given the limited resources of Permittees, it is not appropriate to require them to do both.</p>	None.

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		maintain trash control requirements for private land, regardless of capture device locations and should require incorporation of trash control on private land into direct discharge plans.	Nevertheless, trash controls may exist or be independently required on private land. For instance, there may be trash receptacles and prohibitions on littering or dumping that apply in private parking lots or other areas plumbed to the MS4.	
Save the Bay - 7	C.10	The Permit should identify the combination of non-structural BMPs that are proven effective at achieving full trash capture equivalency.	Comment noted. There is no set combination of non-structural BMPs that has been proven effective at achieving full trash capture equivalency. The combination of BMPs that proves effective for a particular Permittee in a particular location will depend on site-specific factors, such as the population density of the area, the presence or absence of trash-generating businesses like fast food restaurants, and the social and behavioral norms of the people who live in or visit the area. C.10.c identifies proven non-structural BMPs such as trash pickups and the installation of trash receptacles to control Moderate, High, and Very High trash generation areas. Street sweeping is also listed as a non-structural BMP in C.10.iii.(b).(iii)	None.
Save the Bay - 8	C.10	The current permit's provision for monitoring on-land trash conditions (OVTAs) to determine the effectiveness of trash control measures lacks a standard for ensuring data reliability, leaving	We disagree that the monitoring for on-land trash conditions lacks a standard for ensuring data reliability. C.10.b.iii.(b) provides a set of criteria that Permittee are required to meet when conducting on-land visual assessments. Item (iv) requires that	None.

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		<p>monitoring frequency to the discretion of permittees. The tentative order fails to address the issue of variability in assessment data. The permit should require all data to meet an established statistical confidence level to validate any re-categorizing of High trash generation areas to Medium or Low.</p>	<p>Permittees put forth substantive and credible evidence that their management actions (or sets of management actions) when performed to a specified performance standard, yield a certain trash reduction outcome reliably. Permittees are required to submit such evidence to the Executive Officer separate from any other submittals or reports. If the evidence submitted is accepted by the Executive Officer, Permittees may claim a similar trash reduction outcome by demonstrating that they have performed these management actions at the specified performance standard.</p>	
Baykeeper - 7	C.10	<p>C.10's Trash Load Reduction Credits and Offsets Do Not Comply with the State Board's Trash Amendments</p> <p>To date, Permittees have failed to collect data to support the finding that C.10's credits and offsets results in trash reductions that achieve "full capture system equivalency," consistent with the "Track 2" compliance option. Additionally, the Fact Sheet at A-228 and A-229 admits: "[t]he State Trash Amendments do not allow</p>	<p>We agree that offsets and credits must be phased out in order for Permittees to meet the Trash Amendments' discharge prohibition through full trash capture or full trash capture equivalency. Offsets for creek and shoreline cleanups, offsets for implementation of Direct Discharge Control Plans, and credits for new source control actions will no longer be applicable after June 30, 2025. At that time compliance with the 100 percent trash load reduction requirement is required through implementation of full trash capture systems or equivalent controls.</p>	<p>Changes as described in the comment response have been made to C.10.e in the Permit and Fact Sheet.</p>

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		<p>offset credit for [creek or shoreline cleanups or direct discharge controls] in lieu of implementing MS4 controls to meet the Trash Discharge Prohibition.” These admissions require the Water Board to remove C.10 from C.1’s safe harbor, as C.10 does not comply with the Trash Amendments it claims to be implementing.</p> <p>Likewise, C.10.e effectively creates a safe harbor within a safe harbor, allowing Permittees to submit a report describing why it is impracticable to control trash via full trash capture devices or equivalent actions.</p>	<p>These offsets and credits are, however, of value in the interim until full trash capture, or equivalency, is implemented. The interim use of them is not proscribed by the Trash Amendments. Permittees that have taken advantage of these offsets and credits have provided information that they have resulted in significant on-the-ground reductions in trash discharges. Moreover, the Water Board expects that source control actions like those that will no longer receive credit after June 30, 2025, will continue to be an element of the suite of controls that Permittees use to achieve full-trash capture equivalency.</p> <p>With respect to the trash reduction impracticability report in C.10.e, it was borne out of trash workgroup meetings with the Permittees where the impracticability of installing full trash capture devices was discussed. C.10.e. was meant to cover that issue and was erroneously written to suggest that the requirement to reduce trash loads does not need to be met, as that was never the case in discussions with the Permittees. We thank the commenter for pointing out this error and have corrected C.10.e to apply to full capture devices. The impracticability report remains optional and can be helpful to focus Permittees’ efforts on planning for other actions or a combination of actions that can help them achieve the trash reduction</p>	

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			requirements. The Fact Sheet has likewise been amended.	
CCCWP – 59,68	C.10.f	<p>It is inappropriate to specify in C.10.f.ii.b that the Direct Discharge Control Plan must address unsheltered homeless populations.</p> <p>Recommendation. Remove the language pertaining to services provided to unsheltered homeless populations from the requirements of developing a Direct Discharge Control Plan.</p>	<p>Direct trash discharges within waterways and riparian areas are closely tied to the presence of homeless encampments near creek and riparian areas. Efforts to remove encampments from these areas without the provision of alternative housing or services do not permanently (or even temporarily, in many cases) reduce direct trash discharges, but simply shift them to other areas. As a result, it is crucial that Direct Discharge Control Plans address the needs of unsheltered homeless populations such as the provision of housing and social/sanitation services. When Permittees work collaboratively with homeless advocacy groups, local agencies or departments, and other organizations, they are better able to provide assistance with meeting the housing and sanitation needs of people experiencing unsheltered homelessness. This could result in a potential reduction in the number of people experiencing homelessness, a potential reduction in the presence of homeless encampments within riparian areas, or, at the very least, a reduction in the trash discharges from encampments. Therefore, a key best management practice for mitigating the adverse water quality impacts associated with homelessness is for Permittees to work collaboratively to facilitate</p>	<p>C.10.f. has been revised as follows regarding provision of services:</p> <p><i>“... and the following services: trash and sanitary services, and other services which are necessary to meet the needs of people experiencing <u>reduce discharges associated with unsheltered homelessness, such as RV safe parking areas and pump out services, and social services such as health</u>”</i></p>

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			the provision of housing and other services for those experiencing unsheltered homelessness.	care, a means to provide food, and job training that can help the unsheltered homeless transition to housing.
Baykeeper – 6	C.10 C.11 C.12	The Water Board must revise Draft MRP 3 to apply the State Board Orders to the safe harbors in C.10, C.11 and C.12. Proper application will likely require the Water Board to go beyond the requirements in the underlying Trash Amendments and TMDLs in order to achieve rigor, accountability and transparency to comply with the State Board’s principles for safe harbors. If the Water Board does not want to go through the exercise of revising these provisions to comply with the State Board Orders, then it must remove C.10, C.11, and C.12 from Provision C.1’s Safe Harbor.	C.10, C.11, and C.12 include rigorous, accountable, and transparent requirements for trash, mercury, and PCBs to achieve compliance with receiving water limitations and the mercury and PCBs TMDLs. The requirements are the product of years of Water Board experience and knowledge gained through monitoring, as well as studies, evaluations, modeling, and mathematical analyses that the Water Board has overseen, developed, or participated in to ensure that the final compliance deadlines of 2025 (trash), 2028 (mercury), and 2030 (PCBs) will be met. They are based on a thorough and complete identification and prioritization of the issues regarding these pollutants in and around San Francisco Bay. C.10-C.12 include clear and concrete milestones and deadlines. Trash must be reduced by 90% by 2023 prior to the final deadline in 2025. Permittees are expected to reduce mercury by approximately 10 kg/yr, making substantial progress toward achieving TMDL load allocations. Indeed,	None.

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			<p>Permittees have already met the Bay mercury TMDL’s interim loading milestone of 120 kg/yr by 2018. Permittees are expected to reduce an estimated 1.47 kg/yr of PCBs, making substantial progress achieving the regionwide urban runoff wasteload allocation of 2 kg/yr. Representative monitoring is also required to ensure compliance and progress toward achieving standards. In the case of mercury and PCBs, a technically sound quantification of loads reduced through control measures is also required. All of these pollutants are required to be monitored to inform progress and adaptive implementation. In the case of mercury and PCBs, monitoring will be combined with modeling due to the infeasibility of monitoring loading of these pollutants. The data collected will be used to validate assumptions and inform actions. We, therefore, disagree that C.10-C.12 do not comply with the State Water Board orders. Where the Permittees will undertake the kind of ambitious and significant actions required by these Provisions (for example, targeting thousands of acres in total of old industrial areas for mercury and PCBs control alone will be a significant undertaking), the Water Board believes it is appropriate to deem them in compliance with receiving water limitations for these pollutants, consistent</p>	

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			with what the State Water Board has allowed.	
Save the Bay - 4	C.10	The results of Permittees’ annual trash monitoring should not only inform updates to their monitoring plan, but should also inform changes to trash management activities throughout their jurisdiction. The tentative order should require updates to trash management activities in TMAs where outfall monitoring indicates that a low trash generation rate has not been achieved. These updates should also be extrapolated to other TMAs being treated similarly. Without an adaptive management requirement, there is no guarantee that these monitoring efforts will lead to actual changes in trash management and improved outcomes for the receiving waters.	<p>We agree; in response to this and similar comments, language has been added in C.8.e.iii.(8) and C.8.e.v.(6) on how trash monitoring results will inform and/or trigger additional management actions by Permittees.</p> <p>We also note that the inspection and monitoring provisions in C.10.b.iii are designed to provide feedback on the effectiveness of trash control measures. For example, data from on-land visual trash assessments are intended to provide information on the effectiveness of non-structural controls. In other words, an on-land visual assessment in an area not served by a full-trash capture device showing more than Low trash generation would generally indicate that the trash control measures require updating.</p>	Please see revisions to Provision C.8.e.iii.(8) and C.8.e.v.(6) and the corresponding Fact Sheet section.
CCCWP - 57	C.10.a.i	The requirement for a schedule of implementation of additional trash load reduction control actions is already a part of the Trash Load Reduction Plan and should not be a separate requirement.	<p>The requirement for a trash load reduction plan in C.10.a.i for Permittees that do not attain the 90 percent compliance benchmark by June 30, 2023, isn't separate from the requirement in C.10.d.ii.</p> <p>C.10.d.ii requires that Permittees calculate their trash load reduction, relative to 2009 baseline conditions, without the trash load</p>	Language in C.10.d.ii has been revised to provide additional clarity.

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			<p>reduction offsets by June 30, 2023. If that reduction is less than 90 percent, then Permittees are required to develop and implement an updated Trash Load Reduction Plan. The updated Trash Load Reduction Plan must include a schedule of additional trash load reduction implementation actions sufficient to achieve compliance with the 90 percent compliance benchmark within a reasonable timeframe, and actions and a schedule to attain the 100 percent reduction achieved through implementation of full trash capture, or other equivalent actions by June 30, 2025.</p>	
<p>Baykeeper - 16</p>	<p>C.10.a.i</p>	<p>C.10.a.i should not push back the 90% and 100% trash load reduction deadlines. We object to C.10.a.i's revisions to the trash load reduction milestones in MRP 2, which required 100% trash load reduction by July 1, 2022, to require 90% trash load reduction by June 30, 2023 and 100% trash load reduction by June 30, 2025. At a minimum, the Water Board must revise C.10.a.i, C.10.d.ii, and C.10.d.iii to clarify the 90% and 100% trash load reductions are enforceable deadlines in 2023 and 2025.</p>	<p>We disagree that revisions are needed.</p> <p>With respect to extending the deadlines for 90 percent and 100 percent compliance, see Master Response Identifier C.10.a – 1.</p> <p>Separately, the requirements to achieve 90 percent reduction by 2023 and 100 percent trash load reduction by 2025 are mandatory, enforceable deadlines, as stated in the order (“Permittees <u>shall reduce</u> trash discharges from 2009 levels...to receiving waters in accordance with the following schedule....”) (emphasis added).</p>	<p>None.</p>

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SCVURPPP – 115, SMCPPP – 221, Oakland – 23, ACCWP – 55	C.10.a.ii	Language requiring mapping of "other control measures" could pose an extensive level of effort expended by Permittees and is not likely helpful in illustrating implementation (e.g., street sweeping and source control actions). Revise language to focus on mapping of full capture systems and make mapping of "other control measures" optional.	The mapping requirements in C.10.a.ii are an extension of requirements in MRP 2. In 2014, Permittees mapped trash management areas within their jurisdiction and relative to the 2009 baseline trash conditions. The 2014 maps delineated trash generation areas in the Permittees' jurisdictions into the categories of Low, Moderate, High, and Very High, and showed trash management areas where full trash capture devices, or other controls, were being implemented. The 2024 mapping requirement is needed to gain a better understanding of Permittees' trash management areas, including areas where full trash capture devices or other controls are being implemented. Identifying the areas where other controls are being implemented to achieve full trash capture equivalency is crucial for compliance verification purposes. Permittees may provide access to multilayered GIS maps that account for other trash control action details and locations on a separate layer than full-trash capture device coverage.	None.
San Jose - 29	C.10.a.ii.(a)	Screening of the overflows may result in clogging. Current bioretention specifications meet the State trash BMP minimum specifications. Remove "and receiving waters and discharge points from the facility, including	We disagree that the change is needed, as the current language provides sufficient flexibility ("screened or otherwise configured") to include designs that will meet the flow standards and perform acceptably for the range of bioretention controls that might be implemented.	None.

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		overflows, are appropriately screened or otherwise configured.”		
PG&E - 2	C.10.a.ii.(b)	<p>The requirement to install Full Trash Capture Devices (FTCDs) on private property in certain areas:</p> <ul style="list-style-type: none"> • Does not make any exception for properties that are not sources of trash (example: would require installation of FTCDs at sites that are unmanned and fenced to prevent public access). • Imposes unnecessary capital expense and maintenance burdens on properties that do not contribute trash to receiving waters. • Results in risk of property being flooded (i.e., if FTCDs at an unmanned electric substation were to be clogged with leaves), which may create public health and safety risks. <p>Requested modifications:</p> <p>Add an exception for properties that do not contribute trash to the MS4 (i.e., are not accessible to the public and/or on which no trash-generating activities occur).</p>	<p>We disagree that an exception is needed, because C.10.a.ii.(b) has sufficient flexibility to recognize situations where private lands are not sources of trash to the MS4. To avoid confusion, we have revised that subprovision to clarify the situations when a private land would be required to implement FTCDs or equivalent measures. Specifically, those private lands that are either moderate, high, or very high trash generating and that are plumbed to the Permittees’ MS4 system must implement the required measures. We agree that well-maintained fencing has the potential to reduce a parcel’s trash generation rate. However, by itself, fencing is insufficient to allow a determination that a parcel is not significant trash generating. The parcel’s location, including certain PG&E facilities, in an area that has Moderate, High, or Very High trash generation rates due to unauthorized dumping, unsheltered homeless populations, or other trash generating activities, may result in the private parcel generating trash that requires control. Anecdotally, we have observed such situations in Permittee neighborhoods like West Oakland. The revised language clarifies that in such situations, trash control is still required.</p>	<p>Language in C.10.a.ii.(b) and Fact Sheet has been revised to provide additional clarification as described in the response.</p>

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			<p>The design of FTCDs takes into account issues like flooding, for example, by providing high-flow bypasses or similar design solutions</p>	
<p>SCVURPPP – 117 SMCWPPP – 226 ACCWP – 57</p>	<p>C.10.b.i</p>	<p>The following language that is in MRP 2 was removed: "If this frequency of inspection is found excessive after two inspections, the inspection frequency can be reduced to once per year."</p> <p>Reduces the flexibility of Permittees to reduce inspection and maintenance frequencies at sites where there is no evidence of maintenance issues. Additionally, this language is specific to catch basin inserts, not high flow capacity devices.</p> <p>Additionally, change the following language to read: "<u>For catch basin inserts</u>, if any such device is found to have a plugged or blinded</p>	<p>Full trash capture systems must be appropriately maintained to be effective. If a full trash capture system enters the wet season clogged with leaves and/or trash/debris, trash can bypass the device, preventing it from functioning effectively. During device inspections over the course of the previous permit term, Water Board staff observed that roughly 20 percent of the inspected full trash capture devices within moderate, high, and very high trash generating areas required cleaning and/or repair or replacement. The Tentative Order maintains the MRP 2 requirement for Permittees to inspect and maintain their full trash capture devices at a minimum frequency of once per year, but within High and Very High trash generation areas, Permittees must now inspect (and maintain if necessary) their full trash capture devices at a minimum frequency of twice per year, with the inspections spaced at least three months apart. Justification for the higher maintenance frequency within High and Very</p>	<p>The Provision has been revised as follows: <u>"For catch basin inserts</u>, if any such device is found to have a plugged or blinded screen, or is 50 percent full or greater..... <u>For high flow capacity devices</u>, if any such device is found to have a plugged or blinded screen, or exhibits conditions that exceed the manufacturer's guidelines</p>

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		screen, or is 50 percent full or greater..... <u>For high flow capacity devices, if any such device is found to have a plugged or blinded screen, or in any way exhibits a condition that meets or exceeds the manufacturer's guidelines for requiring maintenance...</u> "	High trash generation areas is due to the speed with which full trash capture devices in those areas are expected to get plugged with trash and/or debris if not maintained. We agree that the suggested language for catch basin inserts and for high flow capacity devices is appropriate and have made the requested change.	<u>otherwise requires maintenance beyond the manufacturer's specifications..."</u>
SCVURPPP – 118, 127 SMCWPPP – 230, 248 CCWP – 62, ACCWP – 58,	C.10.b.ii	Remove requirement for permittees to submit a program-wide operation and maintenance summary report that identifies the frequency and approach used by Permittees for the inspection and maintenance of full trash capture devices if benefit can't be stated and/or if the report is identified as a low priority, compared to many other new/enhanced actions included throughout the TO	Comment noted. While information on device type, date of installation, location, drainage area, date(s) of inspection and maintenance, etc. is relevant and important information, this requirement has been removed from the tentative order in-order to reduce the reporting burden.	The requirement in C.10.b.ii.(b) for Permittees to submit a program-wide operation and maintenance summary report has been removed.
ACCWP – 58	C.10.b.ii	It is not necessary, useful, or feasible to define the exact drainage area for each individual inlet. Reduce reporting burden: Clarify that defining one drainage area that defines the drainage area of multiple contiguous inlet-based devices is sufficient.	We disagree. The requirement in C.10.b.ii for Permittees to retain device-specific maintenance records including the drainage area for a given full trash capture device is important and useful information that Permittees should already have available.	None.
Baykeeper – 18	C.10.b.v	C.10.b.v should be removed and no credits for source control should	See Master Response Identifier C.10.b – 1. We partially agree. Some Permittees are	None.

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		<p>be given. Permittee jurisdiction-wide actions to reduce trash at the source via ordinances has not resulted in load reduction percentages claimed by Permittees during MRP 2. Some Permittees may temporarily fall out of compliance with C.10 without this credit, but it is the threat of non-compliance that will cause Permittees to invest in their trash management programs. If the Water Board decides to keep C.10.b.v in MRP 3, it must phase out this credit no later than 2025 and revise the language to clarify that credits claimed under MRP 2 for single use plastic bags, polystyrene food service ware, straws cannot be claimed under MRP 3.</p>	<p>building upon the success of existing source control actions and expanding their ordinances to address other types of disposable items such as plastic food service ware ordinances that address additional types of litter-prone items (e.g., straws, cups, takeout foodware). Nevertheless, we are phasing out source control credits, along with all other offsets for creek and shoreline cleanups and implementation of Direct Discharge Control Plans, because they result in double counting and are inconsistent with the Trash Amendments' requirement that the discharge prohibition be attained by full trash capture or full trash capture equivalency. Source control actions can be a part of the strategy that Permittees use to meet full trash capture equivalency with non-structural controls, but continued percentage credit toward the 100% benchmark after June 30, 2025, will not be applicable.</p>	
Caltrans - 3	C.10	<p>Sunsetting of Source Control, Creek Cleanup, and Direct Discharge Control Credits: Caltrans understands these efforts to be both a significant reducer of trash in receiving waters and a valuable source of compliance credit for permittees. Ending the availability of these credits after June 30, 2025, will likely</p>	<p>See Master Response Identifiers C.10.b – 1 and C.10.f – 1. See also response to San Jose – 4 regarding the request to retain credits from implementation of a Direct Discharge Control Program.</p> <p>We acknowledge Caltrans' support for collaborative source control efforts. As mentioned in the response to San Mateo</p>	

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		<p>disincentivize permittees from continuing and/or expanding these efforts, Rather than disincentivize these efforts, Caltrans encourages the Water Board to not only preserve these credits, but to also consider expanding upon them for increased permittee actions. Caltrans is also interested in exploring partnership opportunities associated with these activities, with the goal of supporting their expansion. While implementing structural and non-structural trash controls clearly plays a vital role in preventing trash discharges through MS4 permits, these alternative methods of trash control also demonstrably contribute to achieving trash-free receiving waters.</p>	<p>County – 16, source control actions can continue to be used to meet full trash capture equivalency in concert with other non-structural controls.</p>	
<p>CCCWP – 64, San Jose – 32, SCVURPPP – 120, SMCWPPP – 236, Oakland – 26, ACCWP – 60</p>	<p>C.10.b.vi</p>	<p>For C.10.b.v, Partial Trash Reduction - Curb Inlet Screens, results of existing studies should be sufficient to acquire 100%reduction credit for moderate trash generating area. At a minimum, 100% reduction should be "provisionally" allowed during MRP 3 as information gaps are addressed during MRP 3. Remove language/requirement for</p>	<p>See Master Response Identifier C.10.b -3</p>	<p>None</p>

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		additional study or minimize to allow for reduced level of analysis needed to address highest priority information gaps.		
San Jose - 33	C.10.d.ii	New language requires permittees to submit an updated Trash Load Reduction Plan with their 2023 Annual Report, if they are unable to meet the June 30, 2023, 90% benchmark without offsets. This contradicts language regarding the offsets that says, "Offsets for creek and shoreline cleanups/direct discharge controls will no longer be applicable after June 30, 2025."	We disagree that the C.10.d.ii Trash Load Reduction Plan update contradicts the phase out of offsets. Permittees are not allowed to consider the use of offsets in updating their Trash Load Reduction Plans. The updated Trash Load Reduction Plan should include a schedule of additional trash load reduction implementation actions sufficient to achieve compliance with the 90 percent compliance benchmark within a reasonable timeframe, and detailed implementation actions and a schedule to attain the 100 percent reduction requirement achieved through implementation of full trash capture, or other equivalent actions by June 30, 2025. The requirement ensures that Permittees that do not meet the 90% reduction benchmark have a roadmap for getting to 90 percent and 100 percent reduction without the use of credits and/or offsets.	None
SCVURPPP – 128 SMCWPPP – 239, 250	C.10.b.v	Source control credits should be allowed towards the 100% reduction; they should not be eliminated from consideration.	See Master Response Identifiers C.10.a – 1 and C.10.b – 1	None

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		<p>The timeframes for achieving the compliance benchmarks are impracticable.</p> <p>Modify language to allow source controls to be used to demonstrate the 100% compliance benchmark.</p> <p>Extend the deadlines to achieve the 90 and 100% benchmarks by two years to July 1, 2025, and July 1, 2027, respectively.</p>		
CCCWP - 66	C.10.e	<p>While the Impracticability Report in C.10.e is recognized as an important tool in planning for trash reduction, it is important to keep the expectations for this report realistic so that limited resources are available to implement programs in addition to writing several plans/ reports. This report has a lot of overlap with the Trash Load Reduction Plan and they should be combined.</p> <p>Recommendation. Combine the Impracticability Report and Trash Load Reduction Plan into one submittal due in 2024.</p>	<p>The Impracticability Report in C.10.e is specific to circumstances under which it may be impracticable to control trash via the installation of full trash capture devices. The Trash Load Reduction Plan in C.10.d, by contrast, should include a schedule of additional trash load reduction implementation actions that will be sufficient for the Permittee to achieve compliance with the 90 percent compliance benchmark within a reasonable timeframe, and the 100 percent reduction requirement from 2009 levels, achieved through implementation of full trash capture, or other equivalent actions, by June 30, 2025 Therefore, these two reports are separate in their overall objectives.</p>	None
Save the Bay – 9	C.10.e	While Save The Bay recognizes that some areas have engineering	See response to Baykeeper – 7.	None

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		constraints and highly persistent trash sources, C.10.e wrongly allows permittees to avoid essential trash reduction and undermines the permit's effectiveness.		
AClaesgens -1, Friends of 5 creeks – 1, FoSC – 1, Pdonald – 1 Grass Roots Ecology – 1	C.10.f.i	<p>Ending incentives for local agencies to organize cleanups is likely to decrease positive community-based improvements. Effects are likely to go beyond what is measurable. Removing the current MRP's incentive for residents' efforts seems likely to reduce what local governments spend to organize and support volunteer hands-on cleanups. Volunteer cleanups are likely to increase interest in and motivation for both a trash-free outdoors and more complex aspects of the environment.</p> <p>Please don't end incentives as this would likely decrease community-based improvements in areas in far reaching ways unknown today.</p>	See Master Response Identifier C.10.f – 1.	None.
Watershed Project – 2	C.10.f	Removing the current offset credit for volunteer cleanups after June 30, 2025 as described in C.10.f is	For request to retain credits for creek and shoreline cleanup efforts see Master Response Identifier C.10.f – 1.	None.

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		likely to reduce the number of volunteer cleanups, since permittees will be less likely to be able to allocate resources to these efforts. Similarly, the current 10% offset provided for source control measures such as product bans is also scheduled to sunset on June 30, 2025. With no incentive for permittees to propose source control measures, it is much less likely that they will commit resources to pursue these measures, which will result in more waste being discharged into surface waters. If the goal is to reduce trash in surface waters, shouldn't incentives for investing effort i trash reduction and removal efforts be maintained?	For request to retain source control credits see Master Response Identifier C.10.b – 1.	
SCVURPPP – 125, SMCWPPP – 242	C.10.f.i	Language should be changed to allow offsets to continue towards 100% trash reduction goal. Extending compliance benchmark to 2027 will allow the Water Board and SCVURPPP to work with State Water Board staff to develop and adopt an updated policy that allows for offsets to occur.	Allowing offsets to exist, in perpetuity, after June 30, 2025, would mean allowing a Permittee's moderate and/or high trash generating area to continue to remain uncontrolled (via the installation of a Full Trash Capture Device, or implementing other measures equivalent to full trash capture) and thus continue to discharge trash to receiving waters unabated. The goal of C.10, however, is for Permittees to achieve meaningful and quantifiable trash reduction via engineering controls such as the	None.

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			installation and operation of Full Trash Capture Devices, or the implementation of other measures equivalent to full trash capture (and verified via OVTAs) to ultimately achieve the goal of no adverse impacts to receiving waters from Permittees trash generation areas. This goal cannot be achieved if offset credits through the Direct Discharge Control Program continue to be an acceptable means of achieving compliance.	
Oakland – 27, ACCWP – 62, Solano – 17, CCCWP – 67, San Jose – 34	C.10.f	Allow credits for additional creek and shoreline cleanups to continue towards the 100% trash reduction requirement and beyond.	See Master Response Identifier C.10.f – 1.	None.
Baykeeper – 19	C.10.f.i	No offset for creek cleanups should be given. Creek cleanups do not reduce trash loading in MS4 discharges to receiving waters. If the Water Board decides to continue to include an offset for cleanups in C.10.f.i of Draft MRP 3, at a minimum, Baykeeper recommends this offset be phased out no later than 2025 and in the interim we recommend the Water Board revise the formula for this offset to require more trash removal per offset credit.	See Master Response Identifier C.10.f – 1.	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.10. – Trash Control**

Comment No.	Provision	Comment	Response	Proposed Revision
San Pablo - 9	C.10.f.ii	<p>San Pablo submitted a Direct Discharge Plan which was approved by Water Board staff on September 30, 2020. The Tentative Order requires the updated plans to “include a commitment to, and a plan for, increasing the provision of emergency, transitional, and/or permanent housing...” as well as other services such as trash and sanitary services. Small cities like San Pablo have no emergency, transitional or permanent housing in their jurisdiction, and receive no funding for these services because funding for unsheltered individuals is handled by Contra Costa County. This language does not provide small cities with the required flexibility to meet the new requirement. In addition, to resubmit amended plans 60 days after the new permit’s effective date is an unreasonable timeline as it takes time to update documents and to follow the necessary approval processes in the City.</p>	<p>We disagree that the Direct Discharge Control Plans provide insufficient flexibility for small cities like San Pablo to control their direct discharges. As an initial matter, discharges associated with unsheltered homelessness are not the only type of direct discharge. DDCPs must also address illegal dumping, which it is within San Pablo’s authority to control. Furthermore, C.10.f.ii does not require San Pablo to build or provide transitional or other housing itself. Instead the provision requires the prioritization of long-term solutions to homelessness, like social services and housing, over temporary solutions, like encampment sweeps. San Pablo may work collaboratively with the County, or with other organizations or agencies, to ensure that broader efforts to improve the living conditions of the unhoused also reduce direct discharges. See responses to CCCWP – 59,68 for additional discussion.</p>	None.

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Comment No.	Provision	Comment	Response	Proposed Revision
		Recommendations: Remove the language to require increasing housing stock for unsheltered individuals, allow an amendment in lieu of an updated plan for Permittees that submitted plans during MRP 2, and extend the deadline for submittal by one (1) year.		
SCVURPPP – 126, SMCWPPP – 243, Oakland – 28, ACCWP – 63, SCVURPPP – 130, SMCWPPP - 254	C.10.f.ii	It is unnecessary for Permittees with an approved DDCP under MRP 2 to resubmit their DDCP for reapproval when this information is readily available in each MRP annual report.	We disagree that it is unnecessary for Permittees to update their DDCPs. C.10.f builds upon previous requirements by requiring that Permittees with an approved DDCP implement measures to prioritize the provision of housing and social/sanitation services in controlling direct discharges associated with unsheltered homelessness. This information was not previously required, so previously approved plans need to be updated with this information.	None.
Baykeeper – 20, Baykeeper & Law Foundation – 1	C.10.f.ii	The Fact Sheet at A-228 describes Direct Discharge Plans as encouraging Permittees to “take steps to permanently reduce direct discharges of trash through the provision of housing and services to the unsheltered populations.” Commenters agree with this approach. C.10.f.ii.(b)(i) properly specifies Direct Discharge Plans addressing discharges from	We thank the commenters for their support. The requirements for the submittal and approval of a DDCP in the Tentative Order have been updated to ensure that Permittees claiming these trash reduction offsets are taking appropriate measures to control direct discharges by both 1) removing trash after it has already impacted receiving waters, and 2) by taking appropriate steps to permanently reduce direct discharges of trash through the provision of housing and	None.

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		<p>unsheltered populations must focus on facilitating housing and providing services, such as trash and sanitary services, RV safe parking areas and pump out services, and social services. This provision allows for trash removal methodologies that do not traumatize unsheltered populations and also facilitates transition to housing and services.</p> <p>However, the Water Board must specify that these services be provided on a regular and frequent basis (i.e., weekly) as a parameter for Direct Discharge Plans. While it appears to the Commenters that the Water Board has revised the Direct Discharge Plans to prioritize compassion, this may not be apparent to Permittees. The Direct Discharge Plan requirements in MRP 2 were silent as to encampment sweeps, and Permittees' prioritized encampment sweeps in each of their Plans. Thus, we recommend the Water Board revise C.10.f.ii.(b)(i) to explicitly reject encampment sweeps as a component of a Direct Discharge</p>	<p>services to unsheltered homeless populations (particularly those located near receiving waters); and (3) by abating and implementing controls at illegal dumping sites and near receiving waters. These measures should be on a continuous and on-going basis.</p> <p>We specifically drafted the provision to encourage trash removal methodologies that do not traumatize unsheltered populations. We agree that encampment sweeps are an ineffective strategy in addressing discharges from homeless encampments to receiving waters. See response to Save the Bay – 10 in C.17 for additional discussion.</p>	

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Comment No.	Provision	Comment	Response	Proposed Revision
		Plan. Permittees must do all that they can to facilitate ongoing compassion toward unsheltered people in order to successfully transition the most vulnerable in our communities to long-term housing. Permittees should pursue these actions without the incentive of a trash load reduction offset, and these actions will continue on without an offset. Thus, the offset for Direct Discharge Plans should be terminated no later than 2025.		
Oakland – 29	C.10.f.ii.b.i	Please revise language in subprovision C.10.f.ii.b.i to say...The DDCP shall make efforts to prioritize providing housing and services to people experiencing unsheltered homelessness who are living near receiving waters.	We decline to make the change. The existing language provides sufficient flexibility for Permittees to consider competing goals.	None.
Oakland – 30	C.10.f.ii.b.ii	Please revise language in subprovision C.10.f.ii.b.ii to say... The DDCP shall make efforts to prioritize control of illegal dumping that occurs near receiving waters.	See response to Oakland-29.	None.
SCVURPPP – 131, SMCWPPP - 255	C.10.g	Remove Fact Sheet language stating that the State Amendments do not allow for offset credit for direct discharge controls.	We disagree. The Trash Amendments prohibit “the discharge of Trash to surface waters of the State or the deposition of Trash where it may be discharged into surface waters of the State,” and provide two “tracks,” or alternative	

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Comment No.	Provision	Comment	Response	Proposed Revision
		<p>The Fact Sheet states that "The State Trash Amendments do not allow offset credit for direct discharge controls in lieu of implementing MS4 controls to meet the Trash Discharge Prohibition." This statement is not true and should be removed. The State Trash Amendments exclude the SF Bay Area from the explicit requirements in the amendments, and the amendments state that the Region 2 MRP approach (which includes Creek Cleanup and Direct Discharge offsets) is a Track 2 approach that is consistent and acceptable under the Amendments.</p>	<p>pathways, for achieving compliance with this prohibition. Permittees in Track 1 must install, operate, and maintain full capture systems for all storm drains that captures runoff from the priority land uses in their jurisdictions."Permittees in Track 2 must install, operate, and maintain any combination of full capture systems, multi-benefit projects, other treatment controls, and/or institutional controls that achieve full capture system equivalency.</p> <p>As a result, offsets and credits for direct discharge controls are only acceptable under the Trash Amendments if Permittees can demonstrate that the implementation of these measures achieves full trash capture equivalency. This has not been the case for the MRP Permittees. While source control measures may be an element of the controls used to achieve full-trash capture equivalency, they generally cannot be used in place of on-the-ground controls that directly reduce trash discharges.</p> <p>The Trash Amendments do not exclude the SF Bay Area from its requirements; the only exclusion relates to the time schedule for permittees to elect how it wants to comply with the Trash Amendments (i.e., via either Track 1 [full trash capture systems] or Track 2 [combination of controls achieving full trash equivalency]).</p>	

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Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP – 124, 129 SMCWPPP – 241, 251	C.10.g.viii	Timeframe for submittal of non-compliance is impractical given that on-land assessments will not be complete until the end of June 2025, time date that the submittal is due. Once data collection efforts are complete, time is needed to apply quality assurance and data validation procedures, and to calculate load reductions associated with data collected. Extend timeframe for submittal of non-compliance to September 30, 2025, with the 2025 annual report.	We decline to make the requested change. It is Water Board staff’s understanding that Permittees will be conducting on-land trash assessments and evaluating the results of their data on an ongoing and continuous basis. Furthermore, most Permittees should be able to predict, with some level of certainty, whether they will be able to meet the trash load reduction requirement prior to the deadline due date. Therefore, it is not appropriate to change the deadline to submit the notice of non-compliance from June 30, 2025, to September 30, 2025.	None.
ACCWP_Legal – 4	C.10.g.vi and viii	Request that the “notice of noncompliance” language in Provisions C.10.g.vi. and viii. be deleted and replaced by a filing of an Extension Request that demonstrates that unexpected barriers were encountered that were not reasonably anticipated in the course of achieving the 90% and 100% benchmarks, thereby extending the compliance period through the end of the permit term.	The Water Board declines to make this change. Permittees unable to achieve the 90 percent or 100 percent mandatory trash reduction requirements will be deemed out of compliance with the permit requirements and hence need to submit a notice of noncompliance as required in Provision C.10.g.vii and C.10.g.ix respectively. Within the notice of noncompliance, Permittees should provide a clear explanation of why they were unable to achieve the mandatory trash reduction requirement by the deadline including unexpected barriers that may have been encountered and that were not reasonably anticipated.	None.

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Comment No.	Provision	Comment	Response	Proposed Revision
Oakland - 31	C.10.f.xi.1	<p>The City relies on the Alameda County Homeless Census and Survey Comprehensive Reports to provide an estimate of the number of people experiencing unsheltered homelessness. These reports do not geolocate census surveys; therefore, there is no way for the City of Oakland to estimate the number of people experiencing unsheltered homelessness living within 500 feet of receiving waters. Suggest removing the underlined language below...</p> <p>For Permittees whose DDCPs address significant discharges from unsheltered homeless populations, the following information for the current year, and for each prior year of the Permit term: The estimated number of people experiencing unsheltered homelessness in their jurisdiction; <u>the estimated number of people experiencing unsheltered homelessness living within 500 feet of receiving waters</u></p>	<p>The Water Board disagrees that there is no way for the City of Oakland to estimate the number of people experiencing unsheltered homelessness within approximately 500 feet of a receiving water, and the Regional Water Board is not requiring Permittees to “geolocate” homeless people. The Water Board disagrees that there is no way for the City of Oakland to estimate the number of people experiencing unsheltered homelessness within approximately 500 feet of a receiving water, and the Water Board is not requiring Permittees to “geolocate” homeless people. Instead, the Water Board requires Permittees to estimate the number of unsheltered homeless people living in proximity to water, and the estimated number of illegal dumping sites near water, as a way of getting a handle on the magnitude of the direct discharge problem. In addition, the Water Board requires the Permittees to coordinate with other agencies and organizations in sharing information and lessons learned about unsheltered homelessness. We note further that the commenter maintains a service call database including electronic maps that can identify the locations of service calls relative to receiving waters like creeks. Such a system could be used to estimate the populations living in proximity to receiving waters. We revised the language to clarify that it is</p>	<p>We revised language to clarify that the estimate should be within “approximately” 500 feet of receiving waters.</p>

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			"approximately" 500 feet, to give flexibility to use available information.	

**Response to Comments on September 10, 2021, Tentative Order
Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
San Jose-37	C.11	Reporting requirements for C.11.a.iii.(2), C.11.e.iii.(1), C.11.f.iii should be moved to the end of the permit term to allow projects to count if completed by end of permit term.	See response to City of San Jose - 38.	See response to City of San Jose – 38.
SCVURPPP-132	C.11	Mercury TMDL wasteload allocations assigned to MRP Permittees have been achieved so requirements in C.11 are not needed to achieve regulatory targets for stormwater. This should be acknowledged and should be non-enforceable.	The claim by Permittees that the mercury wasteload allocation has been achieved is not based on one of the three methods recognized by the TMDL. The claim is based on a modeling exercise that purports to partition the watershed load into a portion that is the responsibility of the Permittees and another portion which is not. This modeling exercise is not consistent with the assumptions and requirements of the TMDL so its outcome cannot be recognized as a demonstration of wasteload achievement. While this modeling exercise may be useful for planning implementation activities, it is not a recognized method of demonstrating achievement of the wasteload allocation. As such, the Water Board will not make the changes requested by the commenter. The control measure implementation for mercury is largely driven by actions targeting PCBs in any case.	None.
Oakland & San Jose-6	C.11 & C.12	Tentative Order does not consider that PCBs largely reside on private property and not public right of way. Implementing and enforcing	Please see master responses C 11/12 -1 (flexibility of complying with C.11/12.c) and C 11/12 - 2 (C.11/12.c performance metrics).	None.

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>programs to address PCBs of old industrial rights of way will be challenging and expensive. The time to develop the implementation plan to address old industrial areas is too short.</p> <p>We ask for more time for our cities and Water Board staff to jointly collaborate and to identify effective and efficient ways to hone limited resources on the most critical sites that impact waterways while minimizing the impact to all businesses.</p>		
SMCWPPP-54	C.11 & C.12	The total industrial acreage and average industrial parcel size are much lower in San Mateo County relative to other counties. It will be challenging for San Mateo County permittees to achieve PCBs load reductions via source property referrals relative to other counties.	The analysis performed by the commenter is interesting, and it is unfortunate that San Mateo County is faced with the challenge of small industrial parcel size with respect to load reduction credit. On the other hand, the same analysis shows that the amount of old industrial land use in San Mateo County is not as large. Therefore, the county has less work to do than other counties to confirm the presence of source properties and locate areas of moderate contamination. So, while parcel size is smaller, the size of the task to deal with San Mateo County old industrial areas is also smaller. Moreover, this is just one of many possible dimensions to assess implementation challenges for the countywide programs. For example, some	None.

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			counties may have more or fewer opportunities for reducing PCBs through piggybacking PCBs control onto trash control efforts. The counties may differ as well in the degree to which redevelopment will help reduce PCBs loads. Therefore, while we appreciate the information provided in the comment, we are not inclined to adjust the performance metric for San Mateo County for this provision since a move in this direction (to account for county-by-county idiosyncrasies) would result in a needlessly complicated accountability system.	
Baykeeper-8	C.11&C.12	Do not include C.11 and C.12 in C.1's Safe Harbor Provisions.	Please see Master Response Identifier C 11/12 – 4 (C11/12 Provisions in Relation to TMDL Implementation Requirements).	None.
SCVURPPP-133	C.11.a	Reference the revised accounting methodology in the Fact Sheet. Delete statements in C.12.a.iii(2) stating that any refinements to methodologies shall be subject to public review.	See response to SCVURPPP-140.	
SCVURPPP-134	C.11.a	Extend due date for reporting on mercury loads reduced from each control measure so that reporting happens with Report of Waste Discharge, six months prior to permit termination date.	See response to City of San Jose-38.	
SMCWPPP-256	C.11.a	Reference the revised accounting methodology in the Fact Sheet.	See response to SCVURPPP-140.	

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Comment No.	Provision	Comment	Response	Proposed Revision
		Delete statements in C.12.a.iii(2) stating that any refinements to methodologies shall be subject to public review.		
SMCWPPP-257	C.11.a	The Tentative Order language for C.12.a does not specify how Permittees would demonstrate that past control measures are being implemented appropriately.	Please see the response to SMCWPPP-268.	
SMCWPPP-258	C.11.a	Extend due date for reporting on mercury loads reduced from each control measure so that reporting happens with Report of Waste Discharge, six months prior to permit termination date.	See response to City of San Jose-38.	
SMCWPPP-259	C.11.b	Allow credit for source property investigation work completed since January 2021. Replace the reference for the Source Control Accounting report in the Fact Sheet.	Please see response to SCVURPPP-141.	
SMCWPPP-260	C.11.c	C.11.c requirements are too aggressive and should be phased over additional years to allow time for gathering data and planning control strategies. Adjust the performance metrics downward.	Please see master responses C 11/12 - 1 (flexibility of complying with C.11/12.c) and C 11/12 - 2 (C.11/12.c performance metrics).	
SMCWPPP-261	C.11.c	Clarify load reduction calculation and crediting procedures.	Please see the response to SCVURPPP-143.	

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Comment No.	Provision	Comment	Response	Proposed Revision
City of Oakland-32	C.11.d.iii	Data collected by mercury recycling program is insufficient to estimate mass of mercury contained in recycled material. Delete requirement to report on mass and only include requirements to report on efforts to promote recycling along with total volume or weight of material.	Section 7 of the source control loads reduction accounting report prepared by Permittees and submitted in October 2021 contains reasonable methods to estimate the mass from amounts of collected materials. It is important to provide an estimate of the mass since this is the relevant quantity to assess progress toward load reductions required by the TMDL. This can be done with the information collected through the county program along with the methods in the load reduction accounting report.	
ACCWP-65	C.11.d.iii	Data collected by mercury recycling program are insufficient to estimate mass of mercury contained in recycled material. Delete requirement to report on mass and only include requirements to report on efforts to promote recycling along with total volume or weight of material.	Please see the response to City of Oakland-32.	
CCCWP-69	C.11.d.iii.	Do not require reporting on mass of mercury contained in recycled material.	Please see the response to City of Oakland-32.	
SCVURPPP-139	C.11.f	Extend due date for reporting on C.11.f (implementation plan and schedule) so that reporting happens with Report of Waste Discharge, six months prior to permit termination date.	Please see the response to SMCWPPP-146.	

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Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-264	C.11.f	Extend due date for reporting on C.11.f (implementation plan and schedule) so that reporting happens with Report of Waste Discharge, six months prior to permit termination date.	Please see the response to SMCWPPP-146.	
SCVURPPP-12a	C.11/C.12	<p>Permit should recognize that the only practical and cost-effective approach for reducing PCBs discharges from old industrial areas is abating source areas, large full trash capture and redevelopment.</p> <p>Replace provision C.11.c and C.12.c with a requirement to develop a long-term plan during the permit term that includes a detailed strategy for verifying and addressing PCBs and mercury contributions from these properties</p>	Please see the response to SMCWPPP-26 as well as the master response C 11/12 -2 (performance metrics for C.11/12.c).	
SCVURPPP-12b	C.11/c.12	Mercury TMDL wasteload allocations assigned to MRP Permittees have been achieved so requirements in C.11 are not needed to achieve regulatory targets for stormwater. This should be acknowledged and should be non-enforceable.	The claim by Permittees that the mercury wasteload allocation has been achieved is not based on one of the three methods recognized by the TMDL. The claim is based on a modeling exercise that purports to partition the watershed load into a portion that is the responsibility of the Permittees and another portion which is not. This modeling exercise is not consistent with the assumptions and requirements of the TMDL	

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			so its outcome cannot be recognized as a demonstration of wasteload achievement. While this modeling exercise may be useful for planning implementation activities, it is not a recognized method of demonstrating achievement of the wasteload allocation. As such, the Water Board will not make the changes requested by the commenter. The control measure implementation for mercury is largely driven by actions targeting PCBs in any case.	
City of Oakland-33	C.11/C.12.b .ii	Allow credit for source property investigation work completed at end of MRP 2.	Please see the response to SCVURPPP-141.	
City of Oakland-34	C.11/C.12.b .iii	Change reporting for C.11.b and C.12.b to begin the first year after monitoring has occurred. The reporting requirement is unreasonable three months after effective date of the permit.	Please see the response to CCCWP-73.	
City of Oakland-35	C.11/C.12.c.i	The Water Board relies on an inaccurate amount of Alameda County old industrial acres possibly subject to control measures. The Permittee has submitted an analysis of remaining old industrial areas that was not included in the Tentative Order. Change the C.11.c/C.12.c requirements for Alameda County to address only 124 acres of	Please see master responses C 11/12 - 1 (flexibility in complying with C.11/12.c requirements) and C 11/12 - 3 (amount of old industrial landuse).	

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		identified moderately contaminated old industrial areas.		
ACCWP-66	C.11/C.12.b.i	Change reporting for C.11.b and C.12.b to begin the first year after monitoring has occurred. The reporting requirement is unreasonable three months after effective date of the permit.	Please see the response to CCCWP-73.	
ACCWP-67	C.11/C.12.c.i	Revise the estimate for Alameda county of old industrial areas subject to control measure implementation according to submitted analysis. Revise level of effort for MRP3 for Alameda County to incorporate a reasonable level of effort - to address just 124 acres of old industrial area during the permit term in Alameda County.	Please see master responses C 11/12 - 1 (flexibility in complying with C.11/12.c requirements) and C 11/12 -3 (amount of old industrial land use).	
ACCWP-68	C.11/C.12.c.i	Tentative Order requires treatment of urban runoff at concentrations that the state allows to remain on cleanup sites. Treatment controls should not be required on areas that do not have elevated levels of PCBs.	Please see master responses C 11/12 - 1 (flexibility in complying with C.11/12.c requirements) and C 11/12 -3 (amount of old industrial land use).	
City of Oakland-37	C.11/C.12.c.ii	Eliminate sizing requirement for treatment control systems used to comply with C.11.c. Sizing should be allowed as needed in	We cannot allow Permittees to size facilities as needed, but we can allow use of conditionally-approved sizing criteria as cited in C.3.j.ii(3)(b). However, use of the conditionally-approved sizing criteria will	C.11/12.c revised to allow use of conditionally-approved sizing

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		constrained situations or projects may not go forward in these areas.	require Permittees to submit an analysis, acceptable to the Executive Officer, to determine how the effectiveness of the alternatively-sized facility compares with the same facility designed according to the sizing criteria for Regulated Projects in the Permittees' C.3 Technical Guidance Documents and in C.3.d sizing criteria. The ratio of the effectiveness will be applied to the acres addressed by the control measure or the loads reduced, whichever accounting mode is being used by the Permittee.	criteria cited in C.3.j(3)(b) for treatment control systems provided an analysis is performed, acceptable to the Executive Officer, to determine the reduced effectiveness of the facility sized according to these alternative criteria.
ACCWP-69	C.11/C.12.c.i	Eliminate sizing requirement for treatment control systems used to comply with C.11.c. Sizing should be allowed as needed in constrained situations or projects may not go forward in these areas.	See response to City of Oakland-37.	
City of Oakland-38	C.11/C.12.c.ii(1)	There is not adequate time to develop the implementation plan for old industrial areas. Revise permit to require annual submittal of treatment plan for acres of old industrial landuse with March 31 Monitoring Report, with first plan submitted March 31, 2023.	Please see master response C 11/12 - 2 (performance metrics for C.11/12.c).	

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Comment No.	Provision	Comment	Response	Proposed Revision
ACCWP-70	C.11/C.12.c.i ii.(1)	Move back reporting for C.11.c.iii(1) by one year.	Please see master response C 11/12 - 2 (performance metrics for C.11/12.c).	
San Jose-38	C.12	Reporting requirements for C.12.a.iii(2), C.12.c.iii(3), C.12.d.iii(3), and C.12.f.iii should be moved to the end of the permit term to allow projects to count if completed by end of permit term.	All control measures implemented during the permit term, but after the 2026 Annual Report, still count toward the implementation requirements. This is clearly stated in C.12.a(iii)(2). It is not acceptable for the Water Board to learn if Permittees fulfilled their obligations under the permit until the very end of the permit term. The Water Board and the public has an interest in receiving information on whether or not Permittees are meeting the performance metrics before the permit is at an end. This will provide an opportunity for some adjustment to implementation intensity while there is still time to implement.	
SMCWPPP-25	C.12	It may not be feasible to meet performance metrics for C.12.c by the end of the permit term.	All Permittees throughout the MRP area have identified high priority watershed management areas, mainly old industrial areas, in 2016, as part of reporting on requirements for MRP 2. Permittees, collectively, have collected over 1000 samples in old industrial areas. Water Board staff has urged Permittees to develop an effective and comprehensive program of implementation in old industrial areas going back to 2014. There is no reason to further delay addressing these areas long known to Permittees as locations of PCBs contamination. See also master response C	

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Comment No.	Provision	Comment	Response	Proposed Revision
			11/12 - 1 (flexibility for complying with C.11/12.c) and C 11/12 - 2 (performance metrics for C.11/12.c).	
SMCWPPP-26	C.12	Permit should recognize that the only practical and cost-effective approach for reducing PCBs discharges from old industrial areas is abating source areas, large full trash capture and redevelopment.	We disagree. Making the claim that the only cost-effective and practical approaches are those mentioned in the comment is an overbroad statement without substantiation. Certainly, the approaches mentioned by the commenter are worthy of implementing, but this is not an exhaustive list of approaches that may be appropriate in all circumstances.	
SMCWPPP-27	C.12	Intercepting PCBs originating from private parcels in the public right-of-way is a short-term fix that is costly and inefficient and will not be effective for properties plumbed directly to the municipal storm drain system.	Please see master response C 11/12 -1 (flexibility of complying with C11/12.c).	
SMCWPPP-28	C.12	Performance metrics in Tentative Order should be adjusted downwards to achievable, practical levels. Actions required over the MRP 3.0 permit term focus on addressing a realistic portion of old industrial landuse. MRP 3.0 should require a plan early in the permit term to describe process and actions permittees can implement or cause to be implemented over the permit term.	Please see master responses C 11/12 - 2 (performance metrics for C.11/12.c) and C 11/12 - 3 (amount of old industrial land use).	

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-29	C.12	PCBs requirements should be phased in over time to allow Permittees time to gather information and data and develop long-term plans for old industrial areas that takes into consideration time horizons for redevelopment, efforts to control trash discharges and enhanced efforts to further characterize drainages and source properties.	Please see master response C 11/12 - 2 (performance metrics for C.11/12.c).	
SCVURPPP-140	C.12.a	<p>Provide approval of the revised accounting methodology and cite this version in the Fact Sheet.</p> <p>Delete statements in C.12.a.iii(2) stating that any refinements to methodologies shall be subject to public review.</p>	<p>We are working toward providing Executive Officer Approval of the accounting methodology submitted as part of reporting for MRP 2, and we have replaced, as appropriate, the references to the final version of this report in the Fact Sheet.</p> <p>Finding 17 of the Tentative Order states that "the Water Board will notify interested agencies and interested persons of the availability of reports, plans, and schedules, including Annual Reports, and will provide interested persons with an opportunity for a public hearing and/or an opportunity to submit their written views and recommendations. The Water Board will consider all comments and may modify the reports, plans, or schedules or may modify this Order in accordance with applicable law. All submittals required by this Order</p>	<p>Replace, as necessary, citations to the most recently submitted loads accounting methodology. Clarify details of public review for refinements to the methodology submitted as part of C.12.a.iii(2) reporting.</p>

**Response to Comments on September 10, 2021, Tentative Order
Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
			conditioned with acceptance by the Water Board will be subject to these notification, comment, and public hearing procedures."	
SMCWPPP-267	C.12.a	Provide approval of the revised accounting methodology and cite this version in the Fact Sheet. Delete statements in C.12.a.iii(2) stating that any refinements to methodologies shall be subject to public review.	See response to SCVURPPP-140.	
SMCWPPP-268	C.12.a	The Tentative Order language for C.12.a does not specify how Permittees would demonstrate that past control measures are being implemented appropriately.	The Fact Sheet supporting information for C.12.a contains the following paragraph providing examples of information that could be used for this demonstration. "Examples of this include the enhanced operation and maintenance activities associated with source property referrals, GSI implementation, trash collection devices with mercury and PCBs reduction benefit, and other control measures. Appropriate documentation may include dated photographic evidence, maintenance records, and other types of relevant records showing that the control measures continue to be implemented in a manner consistent with the load reduction credit established when they were initiated."	None.
SMCWPPP-269	C.12.a	Extend due date for reporting on PCBs loads reduced from each	See response to City of San Jose-38.	

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		control measure so that reporting happens with Report of Waste Discharge, six months prior to permit termination date.		
CCCWP-70	C.12.a.ii. and C.11.a	Revise overall load reduction estimate based on realistic estimate for C.12 implementation.	<p>Please see master responses C 11/12 -1 (flexibility in complying with C.11/12.c), C 11/12 -2 (performance metrics for C.11/12.c) and C 11/12 -3 (amount of old industrial land use).</p> <p>The performance metric for C.12.c has not been revised so there is no need to modify the estimated load reduction benefit as suggested in the comment.</p>	None.
SCVURPPP-141	C.12.b	<p>Allow credit for Old Industrial areas investigated in FY 2021/22 since these areas are not being credited under MRP 2.</p> <p>The Fact Sheet should reference the appropriate versions of the Accounting Report.</p>	<p>The Fact Sheet has been updated as appropriate to reference the recently submitted loads accounting report.</p> <p>The proposed performance metric for source property investigation was calculated based on evaluation of the pace of these investigations over a 5-year period. Therefore, crediting actions for a longer time window undercuts the integrity of this metric and is not consistent with the basis of its derivation. Source property investigations and referrals completed during the previous permit term are "credited" in the sense that these efforts reduce the amount of acres requiring investigations.</p>	Fact Sheet updated as noted.

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-270	C.12.b	<p>Allow credit for Old Industrial areas investigated in FY 2021/22 since these areas are not being credited under MRP 2.</p> <p>The Fact Sheet should reference the appropriate versions of the Accounting Report.</p>	Please see the response to SCVURPPP-141.	
CCCWP-71	C.12.b and C.11.b	Allow credit for Old Industrial areas investigated in FY 2021/22 since these areas are not being credited under MRP 2.	Please see the response to SCVURPPP-141.	
CCCWP-72	C.12.b.ii and C.11.b	There is no need to use language "credited during the permit term" for C.12.b because the programmatic approach does not require achieving a required load reduction during the permit term.	<p>C.11.a.iii(2) and C.12.a.iii(2) require reporting of "total mercury and PCBs loads reduced using the assessment methodologies described and cited in the Fact Sheet to demonstrate cumulative mercury load reduced from each control measure implemented since the beginning of the Permit term." Therefore, the language of C.12.b.ii concerning loads reduced with respect to proper enhanced O&M is relevant.</p> <p>Also this language about crediting contingent on O&M implementation is consistent with the language appearing in the source control accounting report submitted by Permittees for Executive Officer approval (see p, 5 of that report).</p>	None.
CCCWP-73	C.12.b.iii and C.11.b	Change reporting for C.11.b and C.12.b to begin the first year after	It is the Water Board's understanding that the identification of source properties is an	

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		monitoring has occurred. The reporting requirement is unreasonable three months after effective date of the permit.	<p>ongoing activity and not one that will be initiated anew with this permit. Therefore, it is reasonable for Permittees to report on these activities as early as the 2022 Annual Report.</p> <p>Moreover, part of the requirement is to report on the status of ongoing enhanced O&M activities associated with all past contaminated property referrals. The Water Board has a legitimate interest to receive this information yearly and as part of the 2022 Annual Report.</p>	
San Jose-6	C.12.c	Complying with performance requirement of C.12.c will be very costly. Adjust performance metrics down to an achievable, practical level. This permit term should be focused on a practical portion of these acres and require that a plan be developed to describe the process and actions that co-permittees will take to address PCBs on these properties via any set of actions that co-permittees can implement or cause to be implemented during the 5-year MPR 3.0 permit term.	Please see master responses C 11/12 -1 (flexibility in complying with C.11/12.c) and C 11/12 -2 (performance metrics for C.11/12.c).	
San Jose-39	C.12.c	C.12.c requirements are too aggressive and should be phased over additional years to allow time for gathering data and planning	Please see master responses C 11/12 -1 (flexibility in complying with C.11/12.c) and C 11/12 -2 (performance metrics for C.11/12.c).	

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		control strategies. Adjust the performance metrics downward.		
SCVURPPP-142	C.12.c	<p>Required level of effort for C.12.c is not feasible within the five year permit term based on the high cost of treatment controls and the time it takes to plan and implement controls.</p> <p>Level of effort not consistent with Permittee understanding of the amount of moderate old industrial areas in the Santa Clara Valley as determined by an extensive monitoring program conducted by SCVURPPP. The Permittee claims only 370 acres of old industrial landuse in Santa Clara County is moderately contaminated and remains for consideration for control measure implementation.</p> <p>Remove the prescribed acreage and load reduction performance metric for addressing moderate to high PCB-generating old industrial areas. Require that Permittees develop and submit a plan to the Regional Water Board during the permit term that includes a detailed strategy for verifying and addressing PCBs contributions from old industrial properties.</p>	Please see master response C 11/12 - 3 (amount of old industrial land use).	

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		Adjust performance metric significantly downwards for SCVURPPP Permittees to an achievable, practicable level that is based on monitoring data and data analyses conducted to date. PCBs generated on these private properties are not the responsibility of Permittees.		
SCVURPPP-143	C.12.c	Clarify load reduction calculation and crediting procedures.	<p>C.11/12.a already state that the load reduction accounting methodology will be used for these calculations. See C.12.a.i Task Description statements.</p> <p>It is not appropriate to credit enhanced O&M efforts associated with referred source properties as part of C.11/12.c reporting since the purpose of those O&M efforts is to address loads from the source properties and is recognized through the provision of "early credit" for the referral. Crediting these efforts as part of C.11/12.c would be double counting the benefit of these efforts.</p> <p>We do need to clarify that load reductions should not be credited under multiple sub-provisions. For example, green streets projects should generally be credited under C.12.f unless they are predominantly in an old industrial area.</p>	None.

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-271	C.12.c	C.12.c requirements are too aggressive and should be phased over additional years to allow time for gathering data and planning control strategies. Adjust the performance metrics downward.	Please see master responses C 11/12 - 1 (flexibility in complying with C.11/12.c) and C 11/12 - 2 (performance metrics for C.11/12.c).	
SMCWPPP-272	C.12.c	Clarify load reduction calculation and crediting procedures.	Please see the response to SCVURPPP-143.	
ACCWP-a5	C.12.c	Scale back the performance metric for C.12.c for Alameda County to address 124 acres of old industrial landuse with additional areas addressed as identified through monitoring process. Many Diversion to wastewater treatment facilities is not cost-effective and redevelopment is not under the control of the Permittee. It is expensive to install treatment and GI as a means of compliance. Permittee recommends focusing on identifying source properties as primary means of addressing PCBs.	Please see master responses C 11/12 - 1 (flexibility in complying with C.11/12.c) and C 11/12 - 2 (performance metrics for C.11/12.c).	
CCCWP-74	C.12.c.i and C.11.c	The Permittee has submitted an analysis of remaining old industrial areas that was not included in the Tentative Order.	Please see master response C 11/12 - 3 (amount of old industrial landuse).	
CCCWP-75	C.12.c.i and C.11.c	Treatment control measures should not be required to be implemented on areas that do not	Please see master responses C 11/12 - 1 (flexibility in complying with C.11/12.c), C 11/12 - 2 (performance metrics for C.11/12.c)	

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>have elevated levels of PCBs, as the objective is to reduce loads of PCBs. Building stormwater treatment facilities on land with no or low PCBs will not meet this objective. Areas should be confirmed to have an elevated level of PCBs prior to planning treatment for the area. The requirement to apply treatment control measures to stormwater discharged from 1,119 acres of old industrial lands is based on the assumption that 1,119 acres of old industrial land within Contra Costa County have moderate to high PCBs soil concentrations and that this area is treatable using stormwater infrastructure with a 70% efficiency factor constructed in the public right-of-way, on public parcels, or through private redevelopment.</p>	<p>and C 11/12 - 3 (amount of old industrial land use).</p>	
CCCWP-76	C.12.c.i and C.11.c	<p>Data from a Contra Costa County study suggests that the cost for treatment or diversion is an unreasonable economic burden to place on Permittees for small load reductions.</p>	<p>There is no requirement to use diversion of stormwater for treatment if a Permittee does not wish to do so. This type of control measure is listed in the provision as an option to consider. There are other pollutant reduction benefits and the cost is much less than stormwater treatment.</p>	None.

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
CCCWP-77	C.12.c.i and C.11.c	The Tentative Order does not consider that the presence of PCBs in Old Industrial areas largely resides on private properties. Of the 2,661 applicable old industrial acres, approximately 350 acres are in the public right-of-way, 510 acres occur on public parcels, and 1,801 (68%) are private parcels.	Please see master responses C 11/12 -1 (flexibility in complying with C.11/12.c), and C 11/12 - 2 (performance metrics for C.11/12.c).	
CCCWP-78	C.12.c.i and C.11.c	Revise the remaining old industrial area value for Contra Costa County to 2661 acres and revise the performance metric for the county to 77 acres. Permittee also recommends focusing on source properties as an alternative to the requirements stated in C.12.c.	Please see master responses C 11/12 - 1 (flexibility in complying with C.11/12.c), C 11/12 - 2 (performance metrics for C.11/12.c) and C 11/12 - 3 (amount of old industrial land use).	
CCCWP-79	C.12.c.ii and C.11.c	For projects associated with compliance with C.11.c and C.12.c, eliminate this sizing requirement for projects that are not subject to C.3.b	See response to City of Oakland-37.	
San Jose-7	C.12.c.iii	Phase C.12.c requirements over additional years and permit terms to allow enough time to gather additional data, work with private properties, and plan cost-effective control strategies.	Please see master response C 11/12 - 2 (performance metrics for C.11/12.c).	
San Jose-40	C.12.c.iii	Requirements should be phased over additional years and permit	Please see master response C 11/12 - 2 (performance metrics for C.11/12.c).	

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>terms to allow enough time to: - Gather additional monitoring data to better delineate hot vs. warm vs. cold areas. -Work with private property owners to turn off tap. - Plan cost-effective control strategies, including accounting for redevelopment occurring over time. The requirement to submit a plan and schedule 3 months after the permit effective date is impractical and infeasible.</p>		
CCCWP-80	C.12.c.iii.(1) and C.11.c	<p>Requirements should be phased over additional years and permit terms to allow enough time to: - Gather additional monitoring data to better delineate hot vs. warm vs. cold areas. -Work with private property owners to turn off tap. - Plan cost-effective control strategies, including accounting for redevelopment occurring over time. The requirement to submit a plan and schedule 3 months after the permit effective date is impractical and infeasible.</p>	<p>Please see master response C 11/12 - 2 (performance metrics for C.11/12.c).</p>	
CCCWP-110	C.12.c.iii.(2)	<p>Delay C.11.c.iii(2) and C.12.c.iii(2) reporting by one year.</p>	<p>The reporting due date for C.11.c.iii(1) and C.12.c.iii(1) has been slightly delayed, but there is no need to modify the reporting due date for C.11/12.c(2).</p>	None.

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
San Jose-41	C.12.d	Exempt projects with committed funding and construction scheduled to begin by July 2023 from C.12.d requirements.	The Permittees have not submitted any evidence of the "indefinite delays" that would be caused by implementing the material management requirements. Nor have the Permittees submitted a specific list of projects for which they would seek an exemption. This creates a circumstance where Permittees could simply claim, for several years, that bridge and overpass replacement projects have been scheduled and that it is impossible to implement the requirements. This would, in turn, delay realizing the PCBs load reductions associated with implementation of the requirements. This is not acceptable. Based on the experience of Caltrans, who implemented a similar procedure prior to deconstruction of the Bay Bridge, removing and managing this material is not difficult or time-consuming. We further note that Caltrans implemented these procedures well into the project without significant disruption.	None.
SMCWPPP-273	C.12.d	The accountability metric of C.12.d is not clearly stated and it should be stated as "implementation of the control program as specified in the provision."	The statement of the accountability metric in the provision is more clearer than that suggested by the Permittees. The suggestion that the accountability metric should be stated as "implementation of the control program as specified in the provision" provides very little information as to what is expected. The requirement of the provision is to implement a Caltrans specification for	None

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
			managing PCBs containing material. Therefore, the reporting requirement of the provision that Permittees must submit documentation confirming use of the specification is an appropriate and clearly stated accountability metric.	
CCCWP-111	C.12.d.iii.(2)	Move back submission of inventory of bridges to 9/30/2023.	We agree. We will move submission of the bridge inventory to the 9/30/2023 Annual Report.	Change the reporting due date for C.12.d.iii(2) to the 2023 Annual Report.
SMCWPPP-275	C.12.e	C.12.e provision includes Permittee vs. Water Board staff roles are unclear for the requirement to "collaborate with Water Board". Permittees have limited ability to require PG&E to provide information and are reliant on Water Board staff to use their regulatory authority to compel PG&E to cooperate with any information requests.	The roles are clear. This Provision reflects the mutual commitments and understanding between the Water Board and BASMAA. BASMAA proposed the concept of the Provision as a Stressor/Source Identification (SSID) in March 2019. The Water Board and BASMAA have discussed this SSID numerous times since then. This SSID was modified in March 2020 to only include municipally-owned electrical utilities in the Bay Area and not PG&E because of PG&E's bankruptcy proceedings. BASMAA wrote the draft of the letter that the Water Board will send to PG&E. Because of PG&E's bankruptcy proceedings, the Water Board staff said it will move forward with the SSID in MRP 3.0.	None.
SMCWPPP-276	C.12.e	C.12.e requirement includes actions that are beyond the control	The provision reflects the mutual commitments and understanding between	None.

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>of Permittees. Requirements depend upon PG&E information to be fulfilled.</p> <p>Provision should be revised to only include requirements specific to MRP Permittees.</p>	the Water Board and BASMAA, which represents the Permittees.	
City of Oakland-39	C.12.e.ii.(6)	Remove reporting requirement C.12.e.iii(6).	See response to SMCWPPP-276.	None.
ACCWP-71	C.12.e.iii.(4)	Revise the submittal date for reporting for C.12.e.iii(4) to begin with 2023 Annual Report.	We agree.	Changed to begin Annual Reporting in 2023
CCCWP-81	C.12.e.iii.(4) and C.11.e	Revise the submittal date for reporting for C.12.e.iii(4) to begin with 2023 Annual Report.	We agree.	Changed to begin Annual Reporting in 2023
CCCWP-82	C.12.e.iii.(5) and C.11.e	Remove requirement to submit report associated with C.12.e.iii(5).	The Permittees receive a load reduction of 2 kg PCBs/yr for implementation of the protocol. It is unclear if enough is being done to keep the PCBs from demolished buildings from migrating into the MS4 to receive the 2 kg PCBs/yr. The evaluation provides the opportunity to determine whether controls for this Provision are adequately keeping PCBs from demolished buildings from migrating into the MS4 and allows the opportunity to refine the Provision for next permit term.	None.
ACCWP-72	C.12.e.iii.(6)	Remove reporting requirement C.12.e.iii(6).	See response to SMCWPPP-276.	None.

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
San Jose-42	c.12.g	New requirements for C.12.g require new actions by municipalities that will take time to implement. Remove requirement for PCB testing verification and extend implementation date by one year after permit effective date.	We revised language to match task description in MRP 2. We extended the implementation date to begin on July 1, 2023.	We clarified this issue in the revised Tentative Order.
San Jose-43	C.12.g	New requirements for C.12.g require new actions by municipalities that will take time to implement. Remove requirement for PCB testing verification and extend implementation date by one year after the permit effective date.	See response to San Jose-42.	None.
SCVURPPP-145	C.12.g	Additional requirements in C.12.g increase burden on municipal staff. Permittees do not have authority or responsibility to oversee disposal of materials from demolition projects. Permittees are not in a position to determine what is compliant with state and federal regulations. Documentation/confirmation of appropriate disposal of PCBs-containing material should be addressed by agencies under those authorities. Requirements should be clarified to ensure that any required inspections would only apply to projects with	All building materials with PCBs concentrations of 50 ppm or greater requires a Hazardous Waste Manifest for disposal. The Permittees receive a load reduction of 2 kg PCBs/yr for implementation of the protocol. Yet, we do not have a firm enough handle on the demolition of applicable buildings to say enough has been done so there is proper disposal and controls of PCBs from demolished building such that PCBs do not migrate into the MS4. The scope for inspections has been clarified.	We clarified the scope of inspections in C.12.g.

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Comment No.	Provision	Comment	Response	Proposed Revision
		applicable structures that are found to have PCBs > 50 ppm.		
SMCWPPP-278	C.12.g	MRP 2 requirements for C.12.g should be retained rather than placing additional burdens on permittees because the increase burden does not demonstrably lead to water quality improvements.	The Permittees receive a load reduction of 2 kg PCBs/yr for implementation of the protocol. Yet, we do not have a firm enough handle on the demolition of applicable buildings to say enough has been done so there is proper disposal and controls of PCBs from demolished building such that PCBs do not migrate into the MS4 and that 2 kg PCBs/yr is being prevented from entering the MS4. We don't know if the building materials contaminated with PCBs are disposed appropriately or recycled such that the PCBs are introduced again to the MS4; we don't know if adequate controls are implemented during demolition such that the PCBs do not enter the MS4 during and/or after demolition through vehicle track-out, airborne releases, soil erosion, or stormwater runoff. As such, the additional tasks in this permit will demonstrably minimize migration of PCBs from contaminated building materials.	We added the exemption to C,12,g.
City of Oakland-40	C.12.g.ii.(1)	C.12.g should provide exemption for emergency demolitions.	We added an exemption for emergency demolitions but also added a reporting requirement so we can get a handle on how many applicable buildings undergo emergency demolition.	We added the exemption to C.12.g.ii.(1).
ACCWP-73	C.12.g.ii.(1)	C.12.g should provide exemption for emergency demolitions.	See response to City of Oakland-40.	

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Comment No.	Provision	Comment	Response	Proposed Revision
City of Oakland-41	C.12.g.ii.(3)	C.12.g should only require inspections if elevated PCBs are reported for the site.	We agree.	We clarified this requirement in C.12.g.ii.(3).
CCCWP-83	C.12.g.ii.(3) and C.11.g	C.12.g should only require inspections if elevated PCBs are reported for the site.	We agree.	We clarified this requirement in C.12.g.ii.(3) and C.11.g.
City of Oakland-42	C.12.g.ii.(4)	C.12.g should only require enhanced construction site control programs to minimize migration of PCBs from demolition activities if elevated PCBs are reported for the site.	We agree.	We clarified this requirement in C.12.g.ii.(4).
ACCWP-75	C.12.g.ii.(4)	C.12.g should only require enhanced construction site control programs to minimize migration of PCBs from demolition activities if elevated PCBs are reported for the site.	We agree.	We clarified this requirement in C.12.g.ii.(4).
CCCWP-84	C.12.g.ii.(4) and C.11.g	C.12.g should only require enhanced construction site control programs to minimize migration of PCBs from demolition activities if elevated PCBs are reported for the site.	We agree.	We clarified this requirement in C.12.g.ii.(4) and C.11.g.
SCVURPPP-146	C.12.h	Extend due date for reporting on C.12.h (implementation plan and schedule) so that reporting happens with Report of Waste	Please see the response to SMCWPPP-146.	

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Provisions C.11. – Mercury Controls and C.12. – Polychlorinated Biphenyls (PCBs) Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		Discharge, six months prior to permit termination date.		
SMCWPPP-279	C.12.h	Extend due date for reporting on C.12.h (implementation plan and schedule) so that reporting happens with Report of Waste Discharge, six months prior to permit termination date.	The proposed early submittal of this information is intentional. The Fact Sheet explains that one of the main motivations of this provision is to require Permittees to "submit information to inform PCBs-related requirements in the subsequent permit term." The Water Board needs this information submitted well before the end of the permit so that it can timely develop PCBs and mercury provisions for the next MRP. The lack of this information was an impediment for developing such provisions for MRP 3.	
City of Oakland-43	C.12.i.iii	Remove reporting requirement for C.12.i.	The studies required by this provision are motivated by information needs associated with urban runoff. As such, their implementation is the responsibility of Permittees. As the commenter notes, the studies are largely conducted by the SF Bay Regional Monitoring Program, but these efforts will be successful to the degree that Permittees are actively engaged. One way Permittees can demonstrate this engagement is by being knowledgeable about and preparing informative reporting on these efforts.	None.
ACCWP-76	C.12.i.iii	Remove reporting requirement for C.12.i.	See response to City of Oakland-43.	
CCCWP-85	C.12.i.iii and C.11.i	Remove reporting requirement for C.12.i.	See response to City of Oakland-43.	

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Comment No.	Provision	Comment	Response	Proposed Revision
ACCWP-74	C.12.g.ii.(3)	C.12.g should only require inspections if elevated PCBs are reported for the site.	See response to comment CCCWP-83.	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.13. – Copper Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
CCCWP-86	C.13.a.iii and C.13.b.iii	It does not seem appropriate for MRP 3 to require reporting on something in September 2022, as that annual report covers the period of July 1, 2021 – June 30, 2022, before MRP 3.0 is effective. Recommendation. Move these requirements to the 2023 Annual Report, which covers July 1, 2022 – June 30, 2023.	The required reporting under C.13.a and C.13.b is a continuing requirement from MRP 2, and, as a result, reflects work the Permittees are already completing (and required to complete). These requirements involve certifying (presumably existing) legal authority and providing a narrative concerning the mechanism of compliance with C.13.a and C.13.b. Permittees were required to report similar information once during MRP 2, and reporting it once during MRP 3 will help ensure continued implementation. Requiring this continuing modest level of reporting for ongoing implementation in the 2021-22 Annual Report is reasonable.	None.
SCVURPPP-147, 148 SMCWPPP-282, 283	C.13.a, b	The commenters recommend only having every Permittee certify the legal authority, even if they previously certified. The commenters worry that the Water Board could receive some Annual Reports with no certification and that could mean they already certified or the Permittee can't certify.	There is no need to make the requested change. The requirement in the permit clearly states that only Permittees that have not certified their legal authority must do so. There is no exception for Permittees that cannot certify legal authority. The permit is implementing a Basin Plan requirement that all Permittees must certify this legal authority.	None.
Baykeeper-21	C.13.c	The commenter recommends having Permittees' industrial inspectors verify industrial facilities' eligibility for No Exposure Certification (NEC) under the	Permittees are already required to identify facilities likely to use copper or to have sources of copper (e.g., plating facilities, metal finishers, auto dismantlers) and include them in their inspection program plans.	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.13. – Copper Controls**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>Industrial General Permit, and force industrial facilities with roof vents that have the potential to discharge elevated levels of copper in stormwater to obtain full coverage under the Industrial General Permit.</p>	<p>Permittees' industrial inspectors are also required to ensure that proper BMPs are in place at such facilities to minimize discharge of copper to storm drains, including consideration of roof runoff that might accumulate copper deposits from ventilation systems on site. Permittees do not have authority to enforce components of the Industrial General Permit, including ineligibility for NEC and requirements to obtain full coverage under the Industrial General Permit.</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

Comment No.	Provision	Comment	Response	Proposed Revision
Sunnyvale & Mountainview – 12	C.14	Sunnyvale and Mountain View comments 8-24 contain specific, suggested changes to Provisions and Fact Sheet Language.	See response to Sunnyvale and Mountainview – 2, 6, 14-22, and 26-35.	See referenced responses.
ACCWP_Legal – 2	C.14	Testimony was presented at the Board’s workshop / hearing by Daniel Cooper and representatives of the San Francisco Baykeeper that the Tentative Order alternative compliance measures (inappropriately called “safe harbors”) fail to comply with the precedent and direction provided in State Water Board Orders WQ 2015-0075 and 2020-0038 and Los Angeles Superior Court decisions. We disagree with the conclusions of that testimony and request that no further action be taken to modify the language of the Permit provided in the Tentative Order relating to alternative compliance measures. We support the conclusions reached by the Water Board staff and the rationale described in the Fact Sheet.	Comment noted. We have made some changes in response to the referenced comments, including Provision C.14.a related to the cities of Sunnyvale and Mountain View’s bacteria discharge Provision 8 related to receiving water limitations. Please see Responses to Baykeeper - 2, 4, and 11.	See referenced responses and Provisions C.14.a. and C.8.
San Mateo County – 6	C.14	Bacteria Control for Impaired Water Bodies. Recommended actions to address bacteria	We disagree. Commenter has not provided any evidence or argument that would conclude “recommended actions to address	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

		<p>impairments in TMDL watersheds are likely insufficient to meet water quality standards due to natural background sources and a high reliance on public behavior change. Only minor clarifications to C.14 are noted in Attachment A, but County staff will continue to work directly with Water Board staff to implement TMDL requirements, review water quality data, and evaluate TMDL compliance feasibility and progress.</p>	<p>bacteria impairments in TMDL watersheds are likely insufficient to meet water quality standards due to natural background sources and a high reliance on public behavior change.” Until all anthropogenic sources of bacteria discharges are controlled, it is not possible to determine whether the natural background sources would result in exceedances of bacteria water quality standards or not. In the absence of doing so, or any specific evidence that would back up the commenter’s assertion, the permittees continue to be required to implement TMDL actions prescribed in the Permits.</p>	
<p>Sunnyvale & Mountainview – 6</p>	<p>C.14.a</p>	<p>The language should explicitly include all waterways at issue, Stevens Creek and Calabazas Creek. Sunnyvale East Channel is part of the MS4 channel system owned and operated by the Santa Clara Valley Water District and is not properly considered a Water of the United States. The Tributary Policy would not presume uses and objectives apply therein; however, the MRP should include "Sunnyvale East Channel/Guadalupe Slough, to the extent recreational uses and FIB objectives are applicable." Provision should refer to Fecal Indicator Bacteria instead of</p>	<p>We agree that the language should include all waterways at issue, i.e., Stevens Creek, Calabazas Creek, and Sunnyvale East Channel/Guadalupe Slough. See response to Sunnyvale & Mountain View – 26 – 35, and specifically comment 27, regarding why the Sunnyvale East Channel is a water of the United States. A footnote has been added that references to bacteria pertains to fecal indicator bacteria. We agree that BMPs should not be implemented where a source does not exist, or where a potential source is investigated and found to have no reasonable pathway or contribution to water quality impacts and made that clarifying change.</p>	<p>The changes described in the response have been made to C.14.a.</p>

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

		bacteria generally. Clarifying language to specify the following is suggested: 1) the first step is to determine if the source being investigated has the potential to transport significant amounts of FIB to receiving waters. 2) the step to implement BMPs would only apply if such sources had observed or demonstrated potential. In other words, BMPs should not be implemented where there is no contributing source.		
Sunnyvale & Mountainview – 13	C.14.a	This comment contains specific suggested language changes to C.14.a, including a correction to the table cited in the Basin Plan. (Footnote 41 should reference Table 3-1)	See response to Sunnyvale & Mountain View - 6. The clarifying edits have been made. Baykeeper’s monitoring data indicates that the cities have caused or contributed to exceedances of receiving water limitations during the time Baykeeper took samples, so we did not change make the requested change that the cities “may” be causing this problem.	See referenced response. The Basin Plan reference has been corrected.
Baykeeper – 3	C.14.a	C.14.a creates a new alternative compliance pathway for Mountain View and Sunnyvale (the “Cities”) and is included in C.1’s Safe Harbor. As discussed below, C.14.a does not comply with the State Board Orders because it does not implement a TMDL or statewide policy and does not require control measures that	A TMDL is not required to provide an alternative path to compliance with receiving water limitations. See State Water Board WQ Orders 2015-0075, as amended by 2021-0052-EXEC, and 2020-0038. We disagree that C.1 .a control measures are not rigorous, transparent, and accountable. Please see response to Baykeeper – 4.	See response to Baykeeper-4.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

		demonstrate rigor, transparency, and accountability.		
Baykeeper – 4	C.14.a	C.14.a lacks milestones and final deadlines required by State Board Orders. The monitoring program in C.14.a.viii is undefined, there is no deadline for submission of a monitoring plan and the Permit does not require the monitoring plan first be submitted to the Water Board for review and approval. The public will not have the opportunity to evaluate and comment on the rigor and accountability of the monitoring program, because the Cities will develop the monitoring program during MRP 3. It is unclear whether the monitoring tasks of using desktop and field evaluation methods, receiving water monitoring, and GIS analysis must be completed simultaneously. As written, Cities could postpone receiving water monitoring until the end of MRP 3's term. C.14.a.iii.(2) excludes outfall monitoring, limiting the Cities' ability to identify the efficacy of certain control actions, and making the monitoring program less effective. C.14.a.iii.(3) does not require monitoring, it only requires reporting on monitoring that has	See Master Response Identifier C.14.a-1.	See revisions to C.14.a.viii and ix and the Fact Sheet for Provision C.14.a.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

		<p>occurred; there is not enough accountability in this requirement. C.14.a does not include any modeling exercise to project when the Cities will cease causing or contributing to bacteria water quality objectives and there is no provision to implement adaptive management if initial projections are incorrect. C.14.a. includes “Planning for Phase Two Actions,” indicating that the Water Board does not believe the actions in Draft MRP 3 will be adequate to achieve receiving water limitations. Phase 2 actions are left undefined; new actions are not required, and Cities can simply increase the level of existing control measures. There is no hard deadline for Cities to achieve bacteria Water Quality Objectives – the Cities may be allowed to continue to propose additional actions indefinitely in future MRP iterations. C.14.a contains no milestones based on measurable criteria or indicators to be achieved in the receiving waters and/or MS4 discharges. There is no final date for achieving the receiving water limitations as soon as possible. It is unclear what sort of progress at limiting bacteria the Water Board expects to make</p>		
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**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

		each year. The Water Board must exclude C.14.a from the Safe Harbor language in C.1		
Baykeeper – 5	C.14.a	C.14.a only applies to Stevens Creek and Sunnyvale East Channel, there is no explanation for the Water Board’s omission of Calabazas Creek in Draft MRP 3 or the Fact Sheet. C.14.a cites the wrong bacteria water quality objective in Footnote 41. In February 2021, the Board amended the Basin Plan to update bacteria objectives, adopting the State’s Board Bacteria Provision. The Board must cite the State Board Bacteria Provisions as the applicable bacteria water quality objectives.	We regret the errors and ha-d them. See change and response to Sunnyvale & Mountain View comment 6.	Errors have been corrected—see revised Provision C.14.a.
Baykeeper – 10	General, C.1, C.14.a	Draft MRP 3 does not comply with Federal and State Anti-Degradation requirements. The addition of C.14.a to the Safe Harbor authorizes the lowering of water quality under MRP 3. The Safe Harbor in C.1 authorizes discharges causing degradation of receiving waters while programmatic elements are developed and implemented for an indefinite period. C.14.a is not based on an impairment finding or TMDL, and inclusion of C.14.a in the Safe Harbor is not equivalent	See Master Response Identifier General – 1.	See referenced response.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

		<p>to the Safe Harbor in the LA County MS4 Permit. The anti-degradation analysis is deficient because it fails to address whether the addition of C.14.a to the Safe Harbor in C.1 will result in degradation. The anti-degradation analysis for high quality waters does not examine whether the enforcement insulation provided by the permit's Safe Harbor is offset by the maximum benefit to the people of the state. There are no interim or final compliance deadlines for Sunnyvale and Mountain View to meet bacteria standards in Draft MRP 3. The Safe Harbor deems Sunnyvale and Mountain View in compliance with bacteria standards for implementing their existing MS4 programs through MRP 3's term. C.14.a. does not include deadlines for when the degradation will end and receiving water limitations will be achieved. The Board revised Region 4's anti-degradation analysis to include "Alternative 3, Option B" in the "practicable alternatives" in the Fact Sheet and exclude Region 4's alternative compliance option 'without allowing permittees to be deemed in compliance with receiving water</p>		
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**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

		<p>limitations for any high-quality waters.’ In the economic analyses of each alternative the only evidence cited to support the proposition that Permittees face technical and financial constraints are the letters from Permittees requesting the trash load reduction deadlines be extended under C.10, which is not specific to Alternative 3, Option B. The Board must conduct complete, waterbody-specific anti-degradation analyses for all waterbodies that will be degraded under C.14.a. Baykeeper believes that once a full analysis is conducted it will become clear that C.1’s Safe Harbor is not necessary Identifier General – 1. iSee Master Response Identifier General – 1.bor.</p>		
F5C – 2 – 3	C.14.a.iii	<p>The requirements to evaluate potential bacterial sources coming from Unsheltered Homeless populations seem vague and unrelated to the other sections’ requirements of a census, map, and report. Why not provide specific incentives, such as a credit if permittees pay for toilets, handwashing stations, access to clean water, trash pickup? Require upstream and downstream tests</p>	<p>We expect that some of the information gathered and effort performed to satisfy requirements for C.17 would also be useful to satisfy requirements for C.14.a.iii and vice-versa. However, the purpose of provision C.14.a.iii is to specifically direct and require permittees to implement controls to reduce fecal indicator bacteria discharged to the specified waterbodies. An incentive is unnecessary for this provision since it is a requirement.</p>	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

		for human fecal wastes at established camps?		
Sunnyvale & Mountainview – 14 – 22	C.14.a	Sunnyvale and Mountain View comments 14-22 contain specific, suggested changes to Provisions and Fact Sheet Language. The suggested changes accompany their earlier comments. Please refer to the annotated comment letter to see the exact changes requested.	<p>14. See response to comment Sunnyvale & Mountainview - 6. The other editorial changes are unnecessary and have not been made.</p> <p>15. Requested editorial changes are unnecessary and have not been made. See also response to comment Sunnyvale & Mountainview – 6.</p> <p>16. Adding “identified potential FIB” is not needed to clarify expectations, since “Where such potential is determined to exist” has been added. The list of actions to minimize bacteria are examples and the Board declines to make the editorial changes that are unnecessary.</p> <p>17. See response to Sunnyvale & Mountain View – 6. The task has been clarified consistent with the intent of the requirement. The other editorial changes are unnecessary and have not been made.</p> <p>18. See response to Sunnyvale & Mountain View – 6. Other editorial changes have not been made.</p> <p>19. The word “private laterals” does not need to be added as it is understood that sanitary and stormwater systems (and their adjacent infrastructure) covered by the MRP are separately operated and maintained.</p> <p>20. See response to Sunnyvale & Mountain View – 6.</p>	See revised Provision C.14.a for the various changes.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

			21 and 22. The water quality monitoring and phase two sections have been revised in response to comments. See response to Baykeeper – 2 and 4.	
Sunnyvale & Mountain View – 26 – 35	C.14 Fact Sheet	Sunnyvale and Mountain View comments 26-35 contain specific suggested changes to Provisions and Fact Sheet Language. The suggested changes accompany their earlier comments. Please refer to the annotated comment letter to see the exact changes requested.	<p>26. The editorial change is unnecessary and has not been made.</p> <p>27. The references to the waters has been corrected. Sunnyvale East Channel is a water of the U.S. as identified in the jurisdictional delineation completed by H.T. Harvey and Associates²³ and in the current U.S. Army Corps of Engineers Clean Water Act section 404 permit for the Santa Clara Valley Water District’s Stream Maintenance Program. It has a defined bed and banks, is hydrologically connected to San Francisco Bay, and is a navigable tributary to the Bay, among other characteristics. Beneficial use designations in the Basin Plan are not complete and are not determinative of whether a waterbody is a water of the U.S. The C.1.a report is submitted pursuant to the iterative process. To be deemed in compliance with receiving water limitations, one must do more than implement the iterative process. Therefore, the change to add future permittees to C.14.a has not been made. The other editorial changes are unnecessary and have not been made.</p>	See the revised Fact Sheet for Provision C.14.a regarding the various changes.

²³ H.T. Harvey and Associates, Sept. 2013. Figures 6g – 6o, “Wetlands and Other Waters of the U.S., Sunnyvale East and West Channels Flood Protection Project – Wetland Delineation.”

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

			<p>28. The corrections have been made.</p> <p>29. The editorial changes are unnecessary and have not been made.</p> <p>30. The change has not been made. The permit is clear on this point.</p> <p>31. The editorial changes are unnecessary and have not been made.</p> <p>32. The editorial changes are unnecessary and have not been made.</p> <p>33. The comment does not show that a change is requested.</p> <p>34. The editorial changes are unnecessary and have not been made.</p> <p>35. The comment does not show that a change is requested.</p>	
San Mateo County – 19	C.14.b.i.(2)(2e)	<p>Specifies that the Half Moon Bay Airport (KHAF) Meteorological Station is used to assess rainfall depths. Precipitation data from this station has significant gaps and has been unavailable in recent years. Text should state “(as measured at Half Moon Bay Airport (KHAF)</p>	Staff agrees with this request.	<p>Revise C.14.b.i.(2)(e) as follows: The City shall continue to implement a visual inspection and cleanup plan for high dog waste</p>

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

		<p>Meteorological Station or comparable site).”</p>		<p>accumulation areas along the Creek and its tributaries. From April 1 through October 31, inspections and cleanups shall, at a minimum, be conducted on a quarterly basis (e.g., once each in April, July, and October). From November 1 through March 31, inspections and cleanups shall be conducted prior to forecast rain events with a forecast rainfall depth of 0.2 inches or more (as measured at Half Moon Bay Airport (KHAF) Meteorological Station, <u>or comparable site</u>), and at a frequency of no</p>
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**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

				less than once a month.
San Mateo County – 20	C.14.b.ii.(2)(a)	Specifies sampling location for water quality monitoring to assess attainment of wasteload allocations. The Pacifica State Beach Monitoring station described as “the original Linda Mar #5 station” has been reinstated at the location specified and is now identified as Linda Mar #7. Clarify that data from Linda Mar #7 shall be used to assess compliance at Pacifica State Beach. Recommended text: (approximately 300 feet north of the Creek Mouth, at shin depth. Originally referred to as Linda Mar #5 in the TMDL Staff Report, but now referred to as Linda Mar #7).	We agree with this request for clarification and have revised the Tentative Order in response.	Revise C.14.b.ii.(2)(a) as follows: Sample Locations – Two stations shall be monitored: the mouth of San Pedro Creek (Creek Mouth) and Pacifica State Beach (the original Linda Mar #5 station, as of the TMDL’s adoption date of November 2012, which was located approximately 300 feet north of the Creek mouth, and at shin depth, <u>originally referred to as Linda Mar #5 in the TMDL Staff Report</u> but currently refe

**Response to Comments on September 10, 2021, Tentative Order
Provision C.14. – Bacteria Control for Impaired Water Bodies**

				<p>ferred to as Linda <u>Mar #7</u>). The ocations of these stations are shown in the TMDL Staff Report.</p>
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**Response to Comments on September 10, 2021, Tentative Order
Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-284 SCVURPPP-149	C.15.b.i.(2)	Total Residual Chlorine is not an appropriate sampling parameter for groundwater and should be removed from the table. Remove total residual chlorine from the list of sampling parameters.	<p>It is uncommon, but not completely out of the ordinary, to find total residual chlorine in groundwater. For example, it has been detected in construction projects enrolled in the VOC and Fuel General Permit (NDPES Permit No. CAG912002), which we believe was likely due to leaks from potable water distribution systems.</p> <p>Furthermore, C.15.b.i.(2) applies not only apply to groundwater, but also to discharges from foundation drains, crawl space pumps, and footing drains, which have the potential to receive water from potable sources (e.g., broken lines, wash-down water). Because chlorine can harm aquatic life, it is appropriate to test for it in the listed discharges.</p>	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
<p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>	<p>C.15.b.iii</p>	<p>1) Recommend replacing specific requirements with language that would encourage participation in a stakeholder group to discuss options for fire departments and/or Permittees to address water quality concerns related to firefighting discharges. The following language is all that should be required in MRP 3:</p> <p>iii. Discharge Type –Discharges of Fire Department Generated Water and Foam (1) Discharges resulting from firefighting activities. (a) Permittees shall: (i) Participate on a regionwide Fire Department Discharges Working Group (FDDWG) with at least one stormwater program representative and one Fire Department representative from each Countywide program. The working group shall coordinate to identify SOPs and BMPs to reduce water quality impacts from Fire Department activities. Each Countywide program shall decide which Permittees and Fire Departments from their county shall be represented on the working</p>	<p>1) See Master Response Identifiers C.15-1 & C.15-5.</p> <p>2) See Master Response Identifier C.15-2.</p> <p>3a) We disagree. C.15.b.iii has been carefully crafted so that it does not conflict with the primary responsibilities of firefighting personnel.</p> <p>Please refer to the response to the following combined comment, below:</p> <p>CFCA-3 CCCEFC-3 CCCWP-89 Oakland-45,46 San Jose-8 SCVURPPP-150,159,163,164,167,168 SMCWPPP-285,295,299,300,303,304</p> <p>3b) We agree with the Working Group approach described by the commenters, which is what has been incorporated into C.15.b.iii.(2). We expect the Working Group will produce a document that reflects the group’s consensus about doable measures. It is not necessary to wait</p>	<p>Consolidated the two reports (preliminary and final) submitted by the Working Group in 2024 and 2026 into a single report submitted in 2025, and indicated in the Fact Sheet that an update of the report may be called for in a subsequent Permit term.</p> <p>We have reduced the minimum required frequency at which the Working Group convenes subsequent to the submittal of the report from two times per year to once per year.</p> <p>Removed specific reporting requirements, and instead tasked the Working Group with</p>

**Response to Comments on September 10, 2021, Tentative Order
Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>group.</p> <p>(ii) The working group shall identify BMPs and SOPs to prevent and/or improve the quality of non-stormwater discharges from non-emergency activities and from Firefighting Foam.</p> <p>(b) Reporting – The Permittees shall collectively submit a Report by September 30, 2026, that describes progress on the implementation of C.15.b.iii.(2)(a)(i)-(vi) and includes recommendations regarding the implementation of the items listed in C.15.b.iii.(2)(a)(i)-(iv).</p> <p>2) This working group needs to be free to develop the most effective and achievable recommendations. The permit, as written, sets unreasonable and ineffective targets and will ultimately lead to failure. MRP 3 should establish the group and set an overarching goal and not specific provisions.</p> <p>3a) SCVURPPP-14d & SMCWPPP-37: Municipal fire department representatives have expressed many times to Water Board staff that the specific requirements now included in the Tentative Order are</p>	<p>for a future Permit term before implementing identified BMPs and SOPs. That would unnecessarily delay the expected water quality benefits associated with such implementation. However, the Working Group’s report may frame expectations around the time needed for effective implementation of some controls.</p> <p>3c) The proposed changes to C.15.b.iii between MRP 2 and MRP 3 are reasonable and appropriate. Specific requests in other comments are addressed separately.</p> <p>The Provision’s specific requirements include convening a working group to develop and/or update BMPs and SOPs, then implementing the developed guidance and educating appropriate municipal and private parties about it. That approach is the one proposed by fire department representatives to the Permit working group on this Provision, and it is consistent with the purpose requested in the comment: to encourage participation in a stakeholder group that would discuss options for Permittees to address water quality</p>	<p>developing (then implementing) the reporting requirements.</p>

**Response to Comments on September 10, 2021, Tentative Order
Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>not needed, safe, or appropriate. The significantly expanded requirements constrain the abilities of fire departments to protect community health and properties during emergency situations.</p> <p>3b) SCVURPPP-14d & SMCWPPP-37: Both fire department representatives and copermittee/Program staff believe that the appropriate way to address potential water quality concerns associated with firefighting is for them and Water Board staff to participate in a stakeholder group that would outline and identify feasible and safe options for fire departments and/or Permittees to address water quality concerns related to firefighting discharges. The recommended consensus-based options could then be incorporated into the permit when it is next renewed or amended. Through this process, fire department, municipal stormwater, and Water Board staff can work together and in parallel track efforts by industry groups and via state and national forums (e.g., SB 1044) to effectively protect water quality,</p>	<p>concerns related to firefighting discharges.</p> <p>4) The tasks listed in C.15.b.iii.(2)(a)(ii)-(v) are necessary to guide the Firefighting Discharges Working Group. We have modified the language in the provision and associated Fact Sheet section to clarify the Working Group’s broad portfolio and flexibility.</p> <p>Please see the response to 3c) above.</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>while also addressing public safety and multiple regulatory drivers.</p> <p>3c) SCVURPPP-14d: We request that the only addition to the requirements included in MRP 2 is a requirement to participate in a regional work group and report on participation.</p> <p>4) SCVURPPP-150 & SMCWPPP-287: Retain Working Group, but remove specific requirements in C.15.b.iii.(2)(a)(ii)-(v).</p>		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
ACCWP-78	C.15.b.iii	We support the idea of the Working Group. There are a significant number of new requirements identified in C.15.b.iii with little knowledge, background, or research to support them. In some Permittee jurisdictions, the responding fire agency may be a special district or Cal Fire, a state agency, over which the Permittee may not have direct oversight. Also, there are no private firefighting crews in the Bay Area.	See Master Response Identifier C.15-3.	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
ACCWP-78 SCVURPPP-150 SMCWPPP-287	C.15.b.iii	<p>1) This permit cycle should be used to learn more about the resources that are available to assist stormwater programs and fire departments meet water quality goals without jeopardizing the protection of life or property, during emergencies.</p> <p>2) MRP 2 includes requirements for management while allowing the flexibility needed to address these complex discharges associated with life and property safety in emergency situations.</p> <p>3) The significant amount of new requirements and level of effort needed for implementation far outweighs the potential water quality impacts that could be addressed after life and property are addressed.</p>	<p>1) We agree. C.15.b.iii supports and is consistent with this goal, via its establishment of a Working Group to understand and frame appropriate clean water practices associated with firefighting, consistent with the prioritization of life and property.</p> <p>Please see the response to parts 3b) and 3c) of the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>2) We agree, and the Tentative Order continues to allow this same flexibility. It tasks the Permittees with – on an ongoing basis –identifying and evaluating opportunities to reduce the impacts of emergency discharges to the MS4 associated with firefighting activity, and then taking action based on those identified opportunities. We made responsive edits to clarify the Working Group’s role and to place potential BMPs and SOPs for the Working Group to consider in the C.15 Fact Sheet section.</p>	<p>Edits to clarify the role of the Working Group, including moving identified potential BMPs and SOPs to the C.15 Fact Sheet section and continuing to note that they are provided as examples for the Working Group to consider.</p>

**Response to Comments on September 10, 2021, Tentative Order
Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
			3) See Master Response Identifier C.15-4.	
Baykeeper-22	C.15.b.iii	<p>G. C.15.b.iii’s requirements for firefighting foam containment BMPs must remain in draft MRP 3. During MRP 2’s permit term, there were at least three incidents involving discharges of firefighting foam in the Bay Area. In November 2016, a fire-suppression system at the San Jose International Airport malfunctioned, releasing firefighting foam into the surrounding environment. Luckily, a contractor was quickly deployed to clean up the firefighting foam, blocking off storm drains and suctioning up the residual foam, and no impacts to the Guadalupe River were reported. In April 2019, the Berkeley Fire Department used firefighting foam to put out a garbage truck fire in Berkeley. Storm drains were not blocked off, and the firefighting foam reached Codornices Creek, resulting in a fish kill. In October 2019, there was a fire at the NuStar tank farm which was put out with firefighting foam. Initially, it was thought that the firefighting foam was contained</p>	<p>Comment noted. We agree that the provision will not compromise fire response and public safety. In addition, the C.15 Fact Sheet section notes the potential for adverse effects from firefighting discharges, including those that include firefighting foam, and cites specific discharges, including the discharge to Codornices Creek.</p> <p>This provision will establish a Working Group to identify recommended BMPs and standard operating procedures, including for discharges of foam. While the Water Board established a MRP reissuance workgroup to help draft this provision, we are not aware of a working group under MRP 2 like the one that would be required under MRP 3, which performed the tasks specified in C.15.b.iii.(2) of the Tentative Order.</p> <p>Regarding Report timing and implementation, please see responses to the comment:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46</p>	None.

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		<p>via secondary containment, but this was later disproved in the incident’s investigation report. The Board must require Permittees to implement BMPs and ensure infrastructure is maintained in order to protect water quality from these discharges.</p> <p>It is Baykeeper’s understanding that Permittees convened a working group during MRP 2, similar to the working group required in C.15.b.iii.(2), so it is unclear what additional information the Board expects will be gathered during MRP 3 that has not already been gathered. Despite Baykeeper’s requests to be included, we were repeatedly denied the opportunity to participate in the MRP 2 working group, so we can only speculate as to content of these meetings. These past efforts do not justify Permittees needing an additional two years to compile their findings in a Preliminary Report and certainly do not justify delayed BMP implementation under C.15.b.iii.(3). Moreover, this reporting requirement and delayed</p>	<p>SCVURPPP-14d SMCWPPP-287</p>	

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		<p>implementation conflicts with C.15.b.iii.(4), required BMPs, which appears to contain the BMPs already identified by the MRP 2 working group. The Board must revise C.15.b.iii to clarify that BMPs must be implemented during the entire permit term.</p> <p>Contrary to Permittees' claims, C.15.b.iii does not compromise fire response and public safety. C.15.b.iii.(4).(b) provides "[d]uring emergency firefighting situations, priority of efforts shall be directed toward life, property, and the environment (in descending order). Permittee staff, contractors, or firefighting personnel shall control the pollution threat from their activities during emergency firefighting situations to the extent that time and resources allow." Advanced planning will minimize any burdens on time and resources during a fire response in order to allow for the protection of people and the environment.</p>		
CCCWP-88 SCVURPPP-14b	C.15.b.iii	CCCWP-88: The Legislature has already taken significant action (SB 1044) to remove PFAS containing firefighting foam from	Fact Sheet Section C.15 explains the following: "Discharges of Class A firefighting foams	None.

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SMCWPPP-35		<p>use and, where it remains, it is most likely a required form of fire suppression. The Permittees recognize that firefighting foam is a significant source of PFAS into groundwater; however, the Legislature has already addressed this issue. Further requirements to inspect and provide notice of the use of firefighting foam are no longer necessary in light of this legislative action.</p> <p>SCVURPPP-14b: New legislation, SB 1044, approved by the California legislature and signed into law by the Governor in September 2020, addresses the concern of PFAS chemicals in firefighting equipment and foam statewide, which is a more appropriate scale. This legislation prohibits manufacturing, selling, or discharging Class B firefighting foam containing PFAS.</p>	<p>contribute pollution to water quality in receiving waters, because they contain constituents that are acutely toxic to aquatic species. In April 2019, a vehicle fire in the City of Berkeley resulted in the discharge of 4,500-12,000 gallons of potable water and 20 gallons of a Class A firefighting foam (for which the primary/active ingredient is a hydrocarbon surfactant; 96-hr LC50 Rainbow Trout = 16.8 mg/L) into the City’s MS4, which discharged to Codornices Creek and resulted in the deaths of at least 63 Central Coast California Steelhead Trout and 1 sculpin. Similar discharges of other Class A foams with comparable acute aquatic toxicity are likely to cause similar impacts.</p> <p>Class B firefighting foams are generally divided into two types, fluorinated and fluorine-free. Discharges of both types of Class B firefighting foams contribute pollution to water quality in receiving waters, because they contain constituents that are toxic to aquatic species. Fluorine-free Class B foams do not contain PFAS but are still acutely toxic to aquatic species because their primary active ingredient is typically a hydrocarbon surfactant. Fluorinated Class B foams typically contain perfluoroalkyl and polyfluoroalkyl substances (PFAS), which are environmentally persistent and toxic to both human health and aquatic species.</p>	

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			<p>California Senate Bill 1044, approved by the Governor on September 29, 2020, and effective January 1, 2022, prohibits the sale and use of Class B firefighting foams that contain intentionally added PFAS chemicals, with phaseouts for certain continued applications of such foams. This Provision requires the Permittees to recommend reporting requirements (for example, reporting if any of the exemptions in Senate Bill 1044 are invoked by parties acting within Permittees' jurisdictions, such that firefighting foams containing PFAS chemicals are used during firefighting emergencies) then implement those recommendations. Reporting on discharges of PFAS and other foams is necessary to ensure transparency about continued PFAS use within the Permit region, and transparency about discharges of other firefighting foams which also have adverse environmental impacts."</p> <p>In summary:</p> <p>1) All firefighting water and foam have the potential to cause adverse environmental impacts.</p> <p>2) The Working Group is tasked with discussing, then recommending, reporting</p>	

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			<p>requirements, including the content of the reporting and what will trigger the reporting.</p> <p>3) PFAS-containing firefighting foams may still be used within Permittees' jurisdictions because of certain exemptions included in SB 1044, and therefore the Working Group will consider reporting on the use and discharge of PFAS-containing firefighting foams. The benefit provided by this reporting (even to the extent it is duplicative of SB 1044's reporting requirements) is reasonable and important, given the adverse water quality impacts caused by PFAS-containing firefighting foams.</p> <p>This can take any number of forms. For example, Permittees could copy the Water Board on communications to the State Warning Center, or forward those communications to the Water Board. And/or, the Permittees could compile certain information from those communications and summarize that information in the Annual Report.</p> <p>For this Permit term, these decisions will be left up to the Working Group, however, the Water Board may consider including more-prescriptive requirements in a subsequent Permit term.</p>	

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			3) SB 1044 does not completely prohibit all discharges of PFAS-containing firefighting foams. SB 1044 contains phaseouts and exemptions that will allow certain discharges to continue during all or a portion of the MRP 3 permit term.	
CUSP-1	C.15.b.iii	The California Urban Streams Partnership (CUSP) is submitting this comment letter to the Board for its consideration in adopting C.15.b.iii addressing Emergency Discharges of Fire Fighting Water and Foam. The CUSP is a statewide non-profit organization whose members have been active in San Francisco Bay Area stream restoration projects since 1982. It is sending this comment letter to emphasize the need for the proposed new provision and urge Board members to adopt the provision. This letter describes a particularly painful environmental impact from the use of firefighting foam on Codornices Creek in Berkeley-Albany (Codornices Creek fish kill described in detail in comment letter).	Comment noted.	None.
CUSP-2	C.15.b.iii	The context for this fish kill is important for the Water Board to appreciate. A collaborative effort to restore Codornices Creek dating	Comment noted.	None.

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		<p>back to 1995 involves the cities of Berkeley and Albany, University of California, California Department of Water Resources, California Natural Resources Agency, California Coastal Conservancy, Caltrans, the Water Board, National Fish and Wildlife Foundation, Codornices Creek Watershed Council, and several citizen non-profits. State of California and local monetary contributions add up to \$9 million dollars, accompanied with citizen monitoring and volunteer contributions. With the recent completion of a restoration reach upstream of San Pablo Ave., about 3,000 feet of restored channel has been accomplished in the lower watershed. A focal objective of these collaborations over a period of 25 years has been to enhance and protect the threatened Central Coast Trout-Steelhead population. To have this kind of effort shadowed or eclipsed by a one-time discharge of firefighting toxics into the creek is truly heartbreaking.</p>		

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CUSP-3	C.15.b.iii	After this tragic event a representative of the CUSP and SF Baykeeper met with the Chief of the Watershed Division and implored the Water Board to add emergency discharges for firefighting into the MRP. CUSP is therefore pleased to see this effort to set up a regional Working Group to better identify BMPs and Standard Operating Procedures for integrating into fire department practices.	Comment noted.	None.
CUSP-4	C.15.b.iii	After the April 2019 fish kill, CUSP worked with the Berkeley and Albany City Council representatives from the Codornices Creek watershed to hold a community meeting with the Berkeley Fire Department. These points summarize the recommendations produced by this meeting for a regional working group and best management practices to be considered by this group: <ul style="list-style-type: none"> • Develop a Bay Area working group to address best management practices that includes fire safety departments, regulatory agencies, and representatives of citizen public 	The BMPs and SOPs suggested in this comment will be considered by the Firefighting Discharges Working Group.	None.

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		<p>organizations with a stake in protecting aquatic resources and environmental restoration</p> <ul style="list-style-type: none"> • Require that fire departments post watershed maps in their stations which identify locations of sensitive habitat and culvert systems connected to them • Hold regularly scheduled trainings for fire personnel on the use of chloramine discharge mats for storm drains • Develop and adopt the use of booms for use at firefighting locations that can capture foam and other discharges before they can enter storm drains or channels • Fire departments must provide assurances that the firefighting response trucks be stocked with the appropriate discharge collection and blocking equipment • Designate firefighting staff with the responsibility to respond to environment protection measures at emergency firefighting locations. 		

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Oakland & San Jose-8	C.15.b.iii	<p>Discharge Type – Emergency Discharges of Firefighting Water and Foam</p> <p>Fire departments in both San José and Oakland respond to several thousand fires throughout the year (SJFD = 3,700 fires in FY19-20, OFD = 429 fires in the month of September 2021 alone) and provide mutual aid response throughout the state of California for large scale disasters. Both agencies commit considerable resources and personnel to support the State's efforts in combating wildland fires that have been increasing in size and frequency because of climate change. In both San José and Oakland, fires can occur simultaneously and late into the night, drawing down resources and potentially impacting emergency response times. The vacancy rate at San José is 3.7%. There are significant budget impacts to these departments and expanding resources to address stormwater runoff at fire incidents will not be feasible nor practical.</p> <p>The primary mission for both these</p>	<p>Comment noted. The number of fires responded to in the Bay Area, including the examples given, is indicative of both the need to implement measures to reduce the adverse water quality impacts of emergency firefighting discharges and the challenge of doing so. We recognize that a range of municipal departments may respond to a fire (e.g., fire, public works, environmental services). The Working Group established in this Provision will consider the roles of the various responders, and the actions they could take before, during, and after firefighting response.</p>	None.

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		<p>departments is to protect life, property, then the environment. To protect life, the San José Fire Department response time goal to a priority emergency is 7:59 minutes. More consideration is needed for the potential consequences of these new requirements. Most importantly, the impact to firefighters’ health and safety needs to be considered. Implementing discharge controls and limiting foam use during emergency fire suppression activities forces firefighters to remain in toxic environments longer which exposes them to increased levels of known carcinogens. The Fire Department recommends the opportunity to collaborate with the Water Board. In addition, both agencies will help educate its members to the appropriate uses of PFOS/PFAS and recommends collecting more data to better understand the different types of PFOS/PFAS and how they are best used in a safe and effective manner.</p>		
San Jose-44	C.15.b.iii	1) The Fact Sheet describes U.S. EPA’s intent to explore these requirements as part of a category	1) Please see the response to the following combined comment, below:	See the proposed revisions for the

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		<p>of discharges and not for individual fires. However, the Fact Sheet references only one fire-related issue to support the extensive new requirements laid out in the provision. While it may be reasonable to prospectively address flows from firefighting activities, this permit immediately requires BMPs to be implemented without consideration of feasibility or the potential consequences.</p> <p>2) Implementing BMPs may not be feasible given staffing for the Fire Department as well as any contractors that would be needed. This doesn't give consideration to the fire season, during which San Jose firefighters are deployed to assist with wildfire efforts. Also, keeping resources on-scene of an extinguished fire to plug and dyke water/foam runoff for prolonged periods of time will take first responders out of the system, thus increasing emergency response times and impacting service delivery.</p> <p>3) Firefighting activities at the Airport are regulated by the</p>	<p>CCCWP-87 Oakland-44 SCVURPPP-171</p> <p>Please also see the response to the following combined comment, above:</p> <p>ACCWP-78 SCVURPPP-150 SMCWPPP-287</p> <p>2) See Master Response Identifier C.15-6.</p> <p>3) The comment raises no conflict. If an airport is required by the FAA to use a certain firefighting foam, then C.15.b.iii does not contradict that external requirement. It simply requests that Permittees use the least environmentally harmful firefighting foams, to the extent possible.</p> <p>4) Please see the response to the following combined comment, which notes the range of municipal departments that may respond to fires in different capacities and the expectation for the Working Group to consider roles and constraints as part of the Firefighting Discharges Working Group (in particular, parts 2) and 3b) of that response):</p> <p>ACCWP-77,79,80 CFCA-1</p>	<p>other combined comments referred to in this response.</p>

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		<p>Federal Aviation Administration (FAA), which determines the type(s) of Aqueous Film-Forming Foam (AFFF) that are approved for use at the Airport, thus restricting the options for alternative firefighting foams.</p> <p>4) Even if staffing was available, costs for standby pay would be extremely high. Contracting cleanup and pickup services with for-profit hazardous materials disposal contractors is very costly.</p> <p>5) More consideration is needed for the potential consequences. For example, plugging storm drains could result in flooding. Most importantly, the impact to firefighter’s health and safety needs to be considered. Implementing BMPs and using fire suppressants that take longer to extinguish fires required crews to stay longer which increases their exposure to immediate and long-term risk (e.g. health impacts from smoke and fumes).</p> <p>6) Remove the requirements for</p>	<p>CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>5) See Master Response Identifier C.15-7.</p> <p>6) Please see the response to the following combined comment regarding the workgroup approach, and regarding clarification about the BMPs and SOPs being recommended not required (and moving them into the Fact Sheet):</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>	

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		the immediate implementation for required BMPs and SOPs.		
SCVURPPP-14a SMCWPPP-34	C.15.b.iii	<p>1) The requirements for emergency discharges of firefighting activities have increased substantially in the Tentative Order compared to MRP 2 and, for the reasons set forth below, need to be revised.</p> <p>2) Co-Permittees and firefighting personnel already control the pollution threat from firefighting activities to the extent that time, safety, and resources allow, given that putting out the fire is their primary objective.</p> <p>3) However, there are now significant new requirements that are simply untenable.</p>	<p>1) Specific requests are addressed separately.</p> <p>2) Though some Permittees may implement some water quality and hydrologic controls to mitigate the adverse impacts associated with discharges of firefighting foam and water resulting from emergencies, and caveating that putting out the fire is the primary objective, it is our understanding that Permittees generally do not implement water quality and hydrologic controls to the maximum extent that time, safety and resources allow. Therefore, C.15.b.iii has been modestly revised.</p> <p>3) Specific concerns are addressed separately within the responses to this Provision.</p>	None.
SCVURPPP-172 SMCWPPP-307	C.15.b.iii	When private property owners contract for cleanup services it is after the emergency is over, i.e. the fire is out. There is generally no need for containment because the water and foam used to extinguish the fire are no longer being used. Cleanup activities should be conducted using proper BMPs. These cleanup activities	The Working Group may discuss this and include recommendations, as appropriate, in the Firefighting Discharges Report. We are not aware of BMPs and SOPs specific to firefighting emergencies that Permittees have included in their IDDE programs, but to the extent they already have and there is no or little need to modify those existing BMPs and SOPs, that would facilitate completion of the Report.	None.

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		<p>would be addressed through existing Illicit Discharge Detection and Elimination programs without the need for additional requirements.</p>		
<p>CCCWP-87 Oakland-44 SCVURPPP-171</p>	<p>C.15.b.iii & C.15.b.iii Fact Sheet</p>	<p>CCCWP-87: Federal regulations only require municipal stormwater programs to address firefighting activities “where such discharges or flows are identified as significant sources of pollutants to waters of the United States” (40 CFR § 122.26). No such finding has been made here for Contra Costa County. The finding made in the Fact Sheet refers to a fish kill study in Berkeley, however, this does not provide substantial evidence of similar occurrences in Contra Costa County, as the Berkeley fish kill study is not representative of conditions in Contra Costa County.</p> <p>Oakland-44: The federal regulations require that non-stormwater discharges be controlled if they are a significant source of pollutants, and the permitting authority is expected to include permit conditions to prohibit or control specified categories of non-stormwater</p>	<p>See Master Response Identifier C.15-8.</p>	<p>Revised Fact Sheet to include list of potable water spills resulting in fish kills.</p>

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		<p>discharges if they are determined to be a source of pollutants to waters of the United States (40 CFR § 122.26(d)(2)(iv)(B)(1).).</p> <p>The Oakland Fire Department (OFD) disagrees with the Water Board’s assertion that emergency firefighting activities contribute a significant source of pollutants to waterways. OFD maintains that these activities should remain exempt from the state’s stormwater regulations. Federal Stormwater Regulation 40 CFR § 122.26 only requires regulation of discharges from firefighting where such discharges are significant pollutant sources to waterways. Before constraining emergency firefighting activities with prescriptive permit language, and to reduce regulatory confusion, an evidence-based approach should be used to define “significant source of pollutants.” Exempt firefighting activities from the state’s stormwater regulations. Review language and revise to recognize the differences between population-based permittees and</p>		

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		<p>non-population-based permittees role in implementation.</p> <p>SCVURPPP-171: Regulating this category with the large number of specific requirements is based on one noted fish kill during the permit term. We recognize the water quality impact from this discharge, but the current permit regulations allowed Water Board staff and the Berkeley Fire Department to adequately address the specific incident and implement corrective actions. Since MRP 2 did not cite any issues we may assume that this significant level of regulation is to address one incident from firefighting discharges in at least 10 years. Revise the Fact Sheet to reflect no incidents of water quality impacts from individual fires were identified in the previous MRP.</p>		
<p>ACCWP-78 SCVURPPP-150,172 SMCWPPP-287,307</p>	<p>C.15.b.iii Fact Sheet</p>	<p>There are statements in the Fact Sheet that demonstrate a lack of understanding of fire departments, emergency fire response, and post-fire clean-up. Without this basic understanding it is premature to include these new requirements. For example, the Fact Sheet states: “The Permittees estimate</p>	<p>We have clarified the Fact Sheet language to focus on contractors responding to fires, for example to complete containment or cleanup:</p> <p>“The Permittees estimate that a portion of fires are fought-responded to (for containment and clean up) not with municipal resources, but by private firefighting</p>	<p>Clarified the language in the Fact Sheet as indicated.</p>

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		<p>that a portion of fires are fought not with municipal resources, but by private firefighting crews.” This is not accurate. There are no “private” firefighting crews we are aware of in the Bay Area.</p> <p>SCVURPPP-172: This lack of understanding supports the request to replace the specific implementation requirements with the single requirement to hold regional collective workgroup meetings. RWB staff attending these meetings could also gain a better understanding of emergency firefighting operations and cleanup activities before writing specific regulations for this category.</p>	<p>crews contractors. Provision C.15.b.iii.(2) additionally requires the Permittees to collectively (e.g., through the Working Group): 1) develop (and revise on an ongoing basis, as-needed) outreach materials regarding BMPs and SOPs for the containment and cleanup of discharges of firefighting water and foam, for private contractors hired by either Permittees or by private parties to conduct firefighting, containment and cleanup within Permittees’ jurisdictions, because a significant portion of fires on private properties are responded to (for containment and cleanup) by private contractors hired by the owners of those private properties.”</p> <p>This is reflected in C.15.b.iii.(2)(a)(v): “...contractors that are hired by private parties to participate in the containment and cleanup of discharges of firefighting water and foam.”</p> <p>That said, as noted in the Fact Sheet, it is our understanding that there are some private firefighting crews in the Bay Area, such as at large industrial sites like the Chevron refinery in Richmond. The Working Group is encouraged to discuss coordination with these private firefighting crews, as needed (for example, if it is likely that emergency discharges from such sites have</p>	

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			<p>the potential enter Permittees' MS4s).</p> <p>Water Board staff established a workgroup to consider this provision and met with Permittee representatives (including firefighting personnel) as part of the workgroup and separately during the reissuance process. C.15.b.iii in the Administrative Draft was in large part a product of this collaboration. The changes to C.15.b.iii in the Tentative Order are a product of further collaboration. C.15.b.iii.(2) calls for convening the kind of regional collective workgroup that the comment suggests (likely, this would be a continuation of the workgroup that was initiated during the reissuance process).</p> <p><u>Please see the response to the following combined comment, above:</u> ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>	
ACCWP-77,78,81,82 CFCA-2 CCCEFC-2 CCCWP-	C.15.b.iii, C.15.b.iii.(4) (a)(v)	1) C.15.b.iii requires Permittees to influence and oversee emergency firefighting activities, which is outside of Permittees' jurisdiction and may interfere with the ability of	See Master Response Identifier C.15-9.	

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<p>87,90 SCVURPPP- 14b,14c,150,1 54,159,165,16 6,167,168,172 SMCWPPP- 35,36,37,285, 287,290,295,3 01,302,303,30 4,307</p>		<p>firefighters to combat emergencies. C.15.b.iii would have municipal stormwater staff directing fire departments on the types of firefighting foams to use, types of fires on which to use foam, amount of foam to use, and locations not to use foams. Stormwater Programs should not be responsible for dictating what tools are used to fight fires and do not have jurisdiction over many fire agencies. Local stormwater programs should not be making decisions that have life and safety consequences - these decisions should only be made by properly trained and knowledgeable fire departments. Permittees should not be held responsible for the conduct of fire fighters who are focused on putting out fires, rather than implementing BMPs.</p> <p>2) There are also significant new reporting and training requirements that will be difficult for Co-permittees to impose on fire departments.</p> <p>3) Permittees don't have jurisdiction over fire agencies that</p>		

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		<p>are special districts, and therefore Permittees do not have the authority to require fire agencies to implement BMPs. For example, the Menlo Park Fire District services Menlo Park, East Palo Alto, Atherton, and portions of Unincorporated San Mateo County - the Cities served by that district do not have direct oversight.</p> <p>Fire agencies are their own special districts in all but three Contra Costa County cities and should therefore be regulated separately and not in MRP 3. Permittees would have little to no legal authority to require these special fire protection districts to implement the required practices identified in the Tentative Order.</p> <p>Permittees overseeing and regulating fire agencies is problematic and poses legal questions regarding the authority Permittees and/or the Water Board would have in regulating fire agencies. This unresolved legal question has the potential to derail efforts to collaborate on achievable solutions as we argue over</p>		

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		authority and jurisdiction. It also sets Permittees up for failure as they have no way to enforce provisions of MRP 3, which they have no legal authority to implement.		
SMCWPPP-286 SCVURPPP-151	C.15.b.iii.(1)	This is repetitive of subprovision title. Delete and reformat numbering.	C.15.b.iii.(1) is not repetitive of the subprovision title. It defines Emergency Discharges.	None.
ACCWP-78	C.15.b.iii.(2)	Due to the lack of jurisdiction that Permittees have over state agencies and special districts, the Water Board should be responsible for convening the Working Group. Permittees commit to participating in and supporting the Working Group.	It is the Permittees' responsibility to convene the Working Group and implement Provision C.15.b.iii.(2); Water Board staff will participate and assist. Regarding special districts, please see the response above to ACCWP-78.	None.

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ACCWP-79,80 SCVURPPP- 152,153 SMCWPPP- 288,289	C.15.b.iii.(2) (a)(ii)-(iii)	<p>1) These tasks should not be included under Regional Coordination. Permittees should not collectively review individual agency SOPs/BMP/maps/etc. The Work Group should be a place to share ideas, experiences, and information. The information from the Work Group would be brought back to countywide and/or local agencies and used, as appropriate and applicable.</p> <p>2) Cleanup BMPs/SOPs should only be for fires that occur in municipal/public property or right of way. Fires that occur on private property are the responsibility of the property owner for cleanup.</p> <p>3) Provide flexibility to implement at the individual Permittee, countywide or regional level.</p> <p>4) Municipal fire department representatives do not believe these specific requirements are needed or appropriate. Recommend replacing the specific requirements with language that would encourage participation in a stakeholder group that would</p>	<p>1) The comment misinterprets the referenced Provision. The language in the Administrative Draft called for this work at the individual municipal level, and in response to the Permittees' comments on the Administrative Draft, we removed the individual requirement and made it a collective regional task for the Firefighting Discharges Working Group in the Tentative Order.</p> <p>In the Tentative Order, the Provision does not require the Firefighting Discharges Working Group to necessarily review all or any particular SOP/BMP/map; the Firefighting Discharges Working Group might, for example, review a representative sample of SOPs/BMPs/maps. We revised the Provision and associated Fact Sheet language to clarify the intent.</p> <p>2) See Master Response Identifier C.15-10.</p> <p>3) We disagree with this request. In the original Tentative Order, C.15.b.iii was structured such that it would be implemented primarily by individual Permittees, and then based on feedback from the Permittees, the Provision in the current (revised) Tentative Order sets regional requirements to be implemented by the Permittees collectively. Given the structure of the C.15.b.iii and the tasks assigned to the Working Group, it</p>	<p>Clarified in C.15.b.iii.(2)(a)(ii) that the Working Group may review a representative sample(s) of (rather than each and every) SOPs/BMPs/resources.</p>

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		discuss options for fire departments and/or Permittees to address water quality concerns related to firefighting discharges.	<p>would not be appropriate to allow Permittees to implement those tasks individually. However, in a future Permit term, the Water Board may consider revising C.15.b.iii such that Permittees may implement it either at the individual, county, or regional scale.</p> <p>4) Please see the response to part 3c) of the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>	
ACCWP-81 SCVURPPP-154,164 SMCWPPP-290,300	C.15.b.iii.(2)(a)(iv) & C.15.b.iii.(4)(a)(iv)	Permittees have limited ability to identify environmentally harmful foams and influence firefighting. Local stormwater programs should not be responsible for dictating what tools are used to fight fires and as previously noted do not have jurisdiction over many fire agencies. These activities are better suited to be conducted at a state or national level and not have decisions made at a local level. For example, recent State legislation regarding the use of PFAS in firefighting foam. Remove	<p>This comment misinterprets the cited Provision.</p> <p>Though Permittees may individually have limited ability to identify environmentally harmful foams, C.15.b.iii.(2)(a)(vi) specifically calls for information sharing with agencies and organizations which may aid in this effort. Furthermore, C.15.b.iii.(2)(a)(vi) prompts the Permittees to invite representatives from those agencies and organizations to participate in the Firefighting Discharges Working Group, to aid in this and other listed tasks.</p>	None.

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		this specific requirement but identify it as a topic for discussion at the Work Group.	<p>Please see the response to the following combined comment, above:</p> <p>ACCWP-77,78,81,82 CFCA-2 CCCEFC-2 CCCWP-87,90 SCVURPPP-14b,14c,150,154,159,165,166,167,168,172 SMCWPPP-35,36,37,285,287,290,295,301,302,303,304,307</p> <p>Please also see the response to ACCWP-78, above.</p>	
SCVURPPP-155 SMCWPPP-291	C.15.b.iii.(2) (a)(v)	1) This task should not be included under Regional Coordination. Permittees should have an option to develop their own outreach materials individually, countywide, or regionally. Delete or revise to provide flexibility to implement at the regional, countywide or individual Permittee level: "Develop outreach materials on cleanup BMPs and SOPs for contractors hired by private parties to participate in the cleanup of discharges of firefighting water and foam associated with firefighting activities. Outreach materials may be developed on a Permittee,	<p>1) Please see the response to the following combined comment, above:</p> <p>ACCWP-79,80 SCVURPPP-152,153 SMCWPPP-288,289) Refer to the response to the following combined comment, below:</p> <p>SCVURPPP-156 SMCWPPP-292</p> <p>2) The Permit identifies an approach, which is for this issue to be considered in the Working Group. In addition, the stormwater programs regularly collaborate on projects of regional scale, such as preparation of</p>	None.

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		<p>Countywide or Regional basis. Report on outreach development and distribution in 2024 Annual Report."</p> <p>2) There is currently no mechanism for regional outreach to be developed.</p> <p>3) The deadline should be for the development of outreach materials and not specifically distribution by a certain date. Outreach materials may be posted on websites to reach target audiences but would not be defined as distributing. In addition, having a specific due date for distribution implies a single action, i.e. mailout. This type of outreach material is more likely to be distributed on an as-needed, on-going basis, potentially by illicit discharge inspectors.</p> <p>4) Requirements for outreach do not need to explicitly state that if outreach materials are identified as needing to be revised or updated they shall be and then redistributed. This is unnecessary. It benefits Permittees to have current outreach materials. In</p>	<p>outreach materials, and that approach could be implemented here.</p> <p>3) It does not follow logically why the outreach materials should not be distributed by a specific date, other than to give Permittees more time for the task, and to make the task less regulatorily binding. Regarding the outreach materials being distributed on an as-needed, on-going basis, the Permittees may do that, as well. But the primary task outlined in C.15.b.iii.(2)(a)(v) is to distribute outreach materials to contractors that are hired by private parties to participate in the containment and cleanup of discharges of firefighting water and foam associated with firefighting activities within their jurisdictions. It should be straightforward for Permittees to identify these contractors, given that municipalities require businesses operating with their jurisdictions to apply for and receive business licenses.</p> <p>In addition to physically distributing these outreach materials, Permittees are encouraged to distribute the outreach materials electronically, including by posting them to their websites.</p> <p>4) Comment noted. The flexible expectation set in the Permit, that outreach materials be appropriately updated as information</p>	

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		every area of implementation, if outreach material is identified as out of date there is an effort to update as needed.	changes, is consistent with the approach noted by the commenters.	
SCVURPPP-156 SMCWPPP-292	C.15.b.iii.(2)(b)	<p>There is currently no mechanism to have all Permittees work collectively to submit a single report. This subprovision should be rewritten to provide an option for Permittees to work individually, countywide or regionwide. In addition, the report should focus on Permittees reporting participation in the Work Group since this should be a time for learning, sharing information, etc.</p> <p>Revise to report on participation in stakeholder groups individually, countywide or regionwide.</p>	<p>We disagree - this is a regional Firefighting Discharges Working Group with regional representation. As such, it is appropriate for the reporting to be done collectively. That is also more efficient than expecting Permittees to complete and report the same or very similar work individually. Though BASMAA has been replaced by the Bay Area Municipal Stormwater Collaborative (BAMSC), the Permittees can work together on this reporting via the TAG, BAMSC, or other means.</p> <p>We do not understand the request to revise the Provision so that reporting focuses on "Permittee participation" in the Firefighting Discharges Working Group. C.15.b.iii.(2)(a) details requirements for the Firefighting Discharges Working Group, and C.15.b.iii.(2)(b) requires reporting on progress on the implementation of C.15.b.iii.(2)(a) as well as recommendations based on that progress. Permittee participation is implicit, but the provision provides flexibility regarding the exact nature</p>	None.

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			<p>of the participation (e.g., it may be appropriate and more efficient to have a selection of key Permittee representatives participate, rather than each Permittee—similar to other coordinated efforts under the Permit). This reporting may influence changes to the MRP in a future Permit term. Reporting only on Permittee participation in the Working Group will not satisfactorily assess Permittees’ compliance with this Provision, because it will not ensure the production of information (e.g., BMPs and SOPs) sufficient to guide water quality protection.</p> <p>We agree that the Working Group will help provide an opportunity to share information.</p>	
<p>SCVURPPP-157 SMCWPPP-293</p>	<p>C.15.b.iii.(3) (a)</p>	<p>1) All Permittees may not be able to implement all recommendations in a regional or Countywide report. This requirement is too restrictive. In addition, it may not be possible to begin implementation of recommendations upon submittal of a report.</p> <p>2) It is counterproductive to begin implementation of Preliminary Report recommendations to only then, two years later, implement different requirements in the Final Report. Delete requirement.</p>	<p>1) The cited requirement is appropriately flexible. The required Report is a regional submittal, not a county or individual Permittee submittal. We expect that part of the work to be completed by the Working Group will be to identify doable actions with consideration of how they may be implemented across the range of potential situations likely to be encountered, and also how implementation may improve over time as practices are put into place. The comment does not justify why this is too restrictive. The Permittees will write the report themselves. We expect part of that work will be to consider how to frame expected and/or</p>	<p>1) None.</p> <p>2) Refer to the proposed revision in part 1) of the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1</p>

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			<p>required actions, including with respect to practicability.</p> <p>We disagree that is necessary to defer implementation of the Report’s recommendations until some time after the Report has been completed and submitted. There will be plenty of time during their development of the report for the Permittees to ready themselves for implementation, and it is likely that the Report will reflect, in part, BMPs and SOPs that Permittees are already implementing.</p> <p>2) Please refer to part 1) of the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>	<p>CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>
<p>SCVURPPP-158 SMCWPPP-294</p>	<p>C.15.b.iii.(3) (b)</p>	<p>It should be specified this applies to containment and cleanup activities that do not interfere with immediate emergency response operations or impact public health and safety and for cleanup in Permittee right-of-way.</p>	<p>The provision appropriately reflects, at various locations, the stated hierarchy of emergency response operations (i.e., life/public health, property, and the environment) (e.g., C.15.b.iii.2.(a)(iv), C.15.b.iii.4.(a) and (d)). We additionally expect that this issue will be considered by the Working Group to be convened under</p>	<p>None.</p>

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		Revise: "Permittees shall ensure proper BMPs and SOPs are included in contracts for nonmunicipal (contracted) staff hired by Permittees to assist with cleanup activities, that do not interfere with immediate emergency response operations or impact public health and safety, in the public right-of-way or on municipal owned property."	this provision and included, as appropriate, in the BMPs and SOPs developed by the group. As a result, there is a not a need to include an additional statement of the hierarchy.	
SCVURPPP-14c,159 SMCWPPP-36,295 ACCWP-78 Solano-11	C.15.b.iii.(3) (c)	<p>1) It is unclear what oversight authority Permittees have over certain fire agencies (e.g., CalFire) when those agencies respond to emergencies within Permittees' jurisdictions.</p> <p>2) Stormwater program staff within a Permittee should not take on a role of determining the fire response preparedness of industrial facilities that they inspect. Stormwater Programs should not be reviewing or requiring actions related to firefighting. Fire departments already work with large industrial sites through the HMBP program. This should be covered instead within individual Industrial General Permits (or other individual</p>	<p>1) We recognize that Permittees have been challenged to communicate and coordinate with external agencies such as CalFire. As noted in the response to ACCWP-78, we have clarified that this is an expected topic of discussion for the Working Group, with the idea that, over time, improved communication and coordination will reduce potential non-stormwater discharges and their associated impacts to water quality.</p> <p>2) As explained above (see the response to the following combined comment: ACCWP-77,78,81,82 CFCA-2 CCCEFC-2 CCCWP-87,90 SCVURPPP-14b,14c,150,154,159,165,166,167,168,172 SMCWPPP-35,36,37,285,287,290,295,301,302,303,304,</p>	None.

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		permits) and is not the responsibility of municipal stormwater programs.	<p>307), an individual stormwater program is not a Permittee, rather, the municipality of which the stormwater program is a part, is the Permittee. Therefore, we disagree with the comment’s premise that C.15.b.iii would task stormwater programs with regulating fire departments and the like – both are a part of the permitted entity, and it is up to the collective Permittee to comply.</p> <p>Regarding discharges from large industrial sites, Permittees are legally responsible for all discharges to and from their MS4s, regardless of where those discharges originate, and regardless of whether those discharges originate from areas that are covered under separate NPDES permits. Under the Permit, Permittees may self-determine how they coordinate internally to address the Permit’s requirements. For example, many Permittees have or contract with inspectors with the requisite expertise, even if those inspectors are not under the Permittees’ stormwater program.</p> <p>That said, Permittees already review industrial facilities to ensure they’re appropriately meeting clean water expectations and operating in a clean way, and we would expect that Permittee inspectors would determine as part of their reviews whether particular fire-specific</p>	

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			consideration is warranted (informed by the outcomes of the Working Group). This is something that could be further developed by the Working Group.	
SCVURPPP-159 SMCWPPP-295	C.15.b.iii.(3) (c)	<p>Is there any demonstration that this is an issue? What is the definition of a “large” industrial site? Just because an IGP facility is large it doesn’t mean it has any elevated fire danger or issues.</p> <p>The gas/chemical facilities identified generally have other regulatory programs (e.g., Spill Prevention, Control, and Countermeasure (SPCC) Plan, etc.) and Hazardous Materials Business Plan program that address emergency response plans. Stormwater programs should not be reviewing or requiring actions related to firefighting (i.e., actions for stormwater protection may be counter to firefighting measures). Fire departments already work with these facilities through the HMBP program. Delete this section.</p>	<p>Please see the response to the following combined comment, above:</p> <p>SCVURPPP-14c,159 SMCWPPP-36,295 ACCWP-78 Solano-11</p>	

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		<p>Stormwater municipal staff should not take on a role of determining fire response preparedness.</p> <p>Regulation of these sites should be done through the IGP or individual stormwater permits.</p> <p>Delete requirement.</p>		
<p>SCVURPPP-160 SMCWPPP-296</p>	<p>C.15.b.iii.(3) (d)</p>	<p>1) This training requirement is too restrictive because it states all municipal staff and contracted staff must receive training. Municipalities do not have control over specific personnel sent to job sites from contracted companies. This issue of contracted staff is address by the requirement to include BMPs/SOPs in contracts.</p> <p>2) Urban fire cleanup is not expected to be a potential source. Foam and/or water from firefighting activities has already been discharged. The cleanup is removal of debris and vacuuming/cleaning storm drain systems.</p>	<p>1) Municipalities can require contracted staff to participate in the training, as a condition in the contract. It's not enough to just include BMPs/SOPs in the contracts. The training is critical because it will teach them how to implement those BMPs/SOPs in a satisfactory manner, and may also provide background justifying the BMPs/SOPs.</p> <p>This is a reasonable task, and it is required only once during the Permit term. The task is also flexible, in that it could be completed as a standalone training or combined with training taking place for other purposes, in part as noted by the commenters.</p> <p>2) Cleanup of urban fires is a potential and actual source of pollutants to the MS4 and</p>	<p>Revised as indicated.</p>

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		<p>Procedures are no different than any other illicit discharge cleanup (e.g., don't wash down, block storm drains for cleanup as needed). Therefore, training of municipal staff is duplicative of C.2 requirements.</p> <p>3) Having a due date for all municipal staff trained may lead to Permittees being out of compliance for situations out of their control. Typically, training is required under implementation and training progress is reported in Annual Reports. By having a requirement that all municipal staff are trained by a date essentially requires training occurs on that due date. Otherwise staff hired after training for the year occurs could be out of compliance. Or staff scheduled for training may be called into the field for an emergency and would then need to reschedule training before the due date. While we are requesting this training requirement be deleted, at the very least, it needs to be reworded to remove the date in the implementation section, remove the word "all" and have</p>	<p>receiving waters. Please see the response to the following combined comment, above:</p> <p>CCCWP-88 SCVURPPP-14b SMCWPPP-35</p> <p>Please also see the response to the following combined comment, above:</p> <p>CCCWP-87 Oakland-44 SCVURPPP-171</p> <p>Containment and cleanup BMPs may be similar to other illicit discharge BMPs, but the scenario (a firefighting emergency) is distinct from the types of trainings required by C.2.h, as well that C.2.h only applies to municipal staff. Of course, these trainings may be combined for convenience, provided both Provisions are satisfied (e.g., C.15.b.iii.(3)(d) additionally requires training of contracted staff).</p> <p>3) We do not agree that the training should not be required for all municipal and contracted staff, by a specified date. To account for the identified situations, we have delayed the specified date by which training must be completed to June 30, 2027. This will also allow 21 months after completion of</p>	

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		<p>Permittees report on training progress in Annual Reports (i.e. number of municipal staff trained).</p> <p>4) Delete training requirement.</p>	<p>the Firefighting Discharges Report, rather than 9 months. We have delayed the reporting date on training to the 2027 Annual Report from the 2026 Annual Report.</p> <p>4) We disagree, for the reasons stated above. The training requirement is reasonable and appropriate.</p>	
Solano-12	C.15.b.iii.(3)(e)	This is an unnecessary reporting requirement, because prior to and including 2026, the activities will be reported under C.15.b.iii.(2)(b).	This comment misinterprets the cited provision. The information that will be reported pursuant to C.15.b.iii.(3)(e) is distinct from the information that will be reported pursuant to C.15.b.iii.(2)(b). Specifically, (2)(b) addresses submittal of a Firefighting Discharges Report, and (3)(e) addresses reporting on implementation practices and training.	None.
SCVURPPP-161 SMCWPPP-297	C.15.b.iii.(3)(e)(i)	<p>1) Increase in reporting requirements. Overall, reporting requirements have increased, although Water Board staff and permittees had agreed on a goal to reduce reporting throughout the permit.</p> <p>2) Limit reporting requirement to reporting on progress of including proper BMPs and SOPs in contracts for non-municipal (contracted) staff hired by Permittees to assist with cleanup activities, that do not interfere with</p>	<p>1) Comment noted. The reporting requirements are reasonable and necessary to ensure and track implementation. However, we have reduced the overall reporting burden by consolidating the Preliminary and Final Reports into a single Firefighting Discharges Report. Please see the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46</p>	<p>1) See the proposed revision for the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-</p>

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		<p>immediate emergency response operations or impact public health and safety, in the public right-of-way or on municipal owned property.</p>	<p>SCVURPPP-14d SMCWPPP-287</p> <p>Regarding the specific reporting requirements in C.15.b.iii.(3)(e)(i), the reporting on C.15.b.iii.(3)(a) will not begin until the submittal of the Firefighting Discharges Report on September 30, 2025, so there will only be two years of reporting on that subprovision. The reporting on C.15.b.iii.(3)(b)-(c) will also be a light lift prior to the submittal of the Firefighting Discharges Report, as Permittees are expected to begin implementation of those two subprovisions prior to the submittal of the Firefighting Discharges Report, but the BMPs and SOPs will likely not yet be finalized. However, C.15.b.iii.(3)(e)(i) allows flexibility with respect to the content and the associated level of detail of the reporting; the Permittees may self-determine that it is appropriate to simply include a brief narrative summary for each component (e.g., a few sentences each), and update those summaries as needed in subsequent Annual Reports.</p> <p>2) Since the Permittees will have a significant role in determining the training elements, and since C.15.b.iii explains that containment and cleanup BMPs/SOPs should only be implemented to the extent that they do not interfere with efforts to protect public health</p>	<p>14d SMCWPPP-287 2) None.</p>

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			and safety, it is not necessary to repeat that as well in the language in C.15.b.iii.(3)(e)(i).	
SCVURPPP-162 SMCWPPP-298	C.15.b.iii.(3)(e)(ii)	Increase in reporting requirements. Overall, reporting requirements have increased, although WB staff and permittees had agreed on a goal to reduce reporting throughout the permit. Delete reporting requirement.	We do not agree that this reporting requirement should be removed altogether. It requires reporting once during the Permit term, and it is critical because it will confirm and describe Permittees' compliance with C.15.b.iii.(3)(d). See also response to SCVURPPP-161 and SMCWPPP-297.	None.

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<p>CFCA-3 CCCEFC-3 CCCWP-89 Oakland-45,46 San Jose-8 SCVURPPP-150,159,163,164,167,168 SMCWPPP-285,295,299,300,303,304</p>	<p>C.15.b.iii.(4)</p>	<p>1) Over-regulation of firefighting activities during emergency situations. There is no way to detain and collect firefighting runoff (and dispose of the runoff according to jurisdictional requirements), to determine the impact of every foam application to every receiving water, or to remove chloramine from runoff. Including provisions in the MRP 3 that cannot and will not succeed sets up permittees for failure and reduces the opportunities for real environmental quality improvements. These prescriptive BMPs should be removed, and fire agencies should continue implementing current voluntary water quality protection BMPs until September 30, 2024, when C.15.b.iii.(2) requires new BMPs developed by a regionwide Firefighting Discharges Working Group (Working Group), to go into effect.</p> <p>CCCWP-89: The stormwater permit sets containment and treatment of discharges as a potential requirement. Local fire agencies have informed us that the</p>	<p>1) See Master Response Identifier C.15-11. As explained above (see the response to the following combined comment: CCCWP-87 Oakland-44 SCVURPPP-171), chloraminated discharges have significant adverse impacts on aquatic life, so this is an important issue for the Working Group to consider.</p> <p>2) San Jose-8: C.15.b.iii.(4) is largely unchanged from MRP 2; a few additional recommended BMPs have been added to the list, though they have actually been moved to the Fact Sheet, whereas they were in the Provision in MRP 2. Therefore, it does not follow that C.15.b.iii.(4) will cause the dramatic negative impact suggested by the comment. As explained above (see responses to part 2) and 5) of San Jose-44, and to the following combined comment: CFCA-3 CCCEFC-3 CCCWP-89 Oakland-45,46 San Jose-8 SCVURPPP-150,159,163,164,167,168 SMCWPPP-285,295,299,300,303,304), and as the Tentative Order reinforces, BMPs should only be implemented to the extent that they do not cause the negative impacts suggested by the comment.</p>	<p>None.</p>

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		<p>amount of water used to fight fires is significant (150-5,000 gallons of water per minute entering the landscape). Blocking storm drains, collecting firefighting runoff and treating runoff is cost prohibitive, infeasible to store and treat due to the large quantities, and could result in life and safety hazards and property damage due to localized flooding.</p> <p>Oakland-45: Plugging storm drains for temporary storage to allow dechlorination prior to discharging emergency firefighting water to storm drains, provided that immediate emergency response operations and/or public health and safety are not impacted, will cause discharge flows to flood streets and could flood adjacent properties and flow into downstream inlets. This is because a typical fire will have multiple lines flowing at 150-1,000 gallons per minute for a range of 10 minutes to hours. These flow rates produce tens of thousands of gallons of water within a few minutes. Trying to contain this water would interfere with emergency response</p>	<p>3) SCVURPPP-159 & SMCWPPP-295: Please see the response to the following combined comment, above:</p> <p>CFCA-3 CCCEFC-3 CCCWP-89 Oakland-45,46 San Jose-8 SCVURPPP-150,159,163,164,167,168 SMCWPPP-285,295,299,300,303,304</p> <p>4) SCVURPPP-163 & SMCWPPP-299: We disagree. Please see the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-2875) SCVURPPP-167,168 & SMCWPPP-303,304: We do not agree that all recommended BMPs should be removed. BMPs should only be implemented to the extent that they do not impede fire personnel's ability to protect life and property. Please see the response to the following combined comment, above: ACCWP-77,78,81,82 CFCA-2</p>	

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		<p>operations and would strain task-saturated firefighting personnel. Delete this requirement to prevent this unintended consequence.</p> <p>2) San Jose-8: The Tentative Order's immediate requirement that permittees require firefighting personnel to implement BMPs and SOPs for emergency discharges disregards the feasibility of implementation and potential consequences to emergency response. Implementing the BMPs may not be feasible given staffing for the fire department and will be costly for already strapped city budgets to hire contractors that would be needed for emergency response efforts. Additionally, keeping resources on-scene of an extinguished fire to plug and dyke water/foam runoff for prolonged periods of time will take first responders out of the system, thus increasing emergency response times and impacting service delivery.</p> <p>3) SCVURPPP-159 & SMCWPPP-295: Actions for stormwater protection may be counter to</p>	<p>CCCEFC-2 CCCWP-87,90 SCVURPPP-14b,14c,150,154,159,165,166,167,168,172 SMCWPPP-35,36,37,285,287,290,295,301,302,303,304,307.</p> <p>The requirements in C.15.b.ii do not apply only to municipal stormwater program staff; the entire municipality and all of its departments are the Permittee (see the response to the following combined comment, above: ACCWP-77,78,81,82 CFCA-2 CCCEFC-2 CCCWP-87,90 SCVURPPP-14b,14c,150,154,159,165,166,167,168,172 SMCWPPP-35,36,37,285,287,290,295,301,302,303,304,307), and one of the tasks assigned to the Working Group is to identify opportunities to improve coordination within municipalities (as well as between municipalities and other entities, as appropriate).</p>	

**Response to Comments on September 10, 2021, Tentative Order
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Comment No.	Provision	Comment	Response	Proposed Revision
		<p>firefighting measures.</p> <p>4) SCVURPPP-163 & SMCWPPP-299: Municipal fire department representatives do not believe these specific requirements are needed or appropriate. Recommend replacing the specific requirements with language that would encourage participation in a stakeholder group that would discuss options for Fire Departments and/or Permittees to address water quality concerns related to firefighting discharges.</p> <p>5) SCVURPPP-167,168 & SMCWPPP-303,304: C.15.b.iii.(4)(vi) & C.15.b.iii.(4)(viii) should be removed. These should not be stormwater BMPs. How much firefighting foam is used, and which fires are treated with firefighting foam should only be determined by fire department staff, based on their knowledge of the type of fire only and not water quality impacts.</p>		

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Comment No.	Provision	Comment	Response	Proposed Revision
San Jose-45	C.15.b.iii.(4) (a)(iii)	<p>This is an onerous process for the City. Jurisdictional requirements for disposal will have to be developed for proper disposal of water and foam. This provision exceeds the current resource capacity of the City and will be a high financial burden if the fire department or any City department is required to dispose of water/foam run-off from every vehicle fire/fire in the City. There is also the extra burden to consider regarding billing and cost-recovery. This would result in an extra billing cost for owners/insurance carriers for privately owned property or vehicles. The City will have to absorb the cost when the fire involves uninsured property or unhoused property negatively impacting the City budget.</p> <p>Remove this requirement and replace with a requirement to participate in a stakeholder group that would discuss options for fire departments and/or Permittees to address water quality concerns related to firefighting discharges.</p>	<p>The referenced recommended BMP is not new to the Tentative Order – it was in MRP 2. It is unclear why its retention in the Tentative Order would create new problems in MRP 3, when its inclusion in MRP 2 did not cause those problems.</p> <p>Regardless, these BMPs are recommended, not required. And in the revised Tentative Order, we have moved them into the Fact Sheet and revised the Provision to reference them in the Fact Sheet. The expectation set by C.15.b.iii is that the Working Group will consider the recommended BMPs, make its own recommendations in the Firefighting Discharges Report about which BMPs (and SOPs) are appropriate in which situations, then the Permittees will begin implementing those recommendations upon submittal of the Firefighting Discharges Report.</p> <p>Please refer to the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>	<p>Please refer to the proposed revisions for the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
			<p>The Water Board disagrees that this provision will exceed the resource capacity of the City or other Permittees. As noted above, fire departments are not required under C.15 to dispose of water or foam runoff from “every vehicle fire” or every fire. Rather, the Permittees are instructed to develop BMPs that can be implemented to reduce firefighting discharges without impeding the firefighting itself. The Water Board is aware that the Permittees may not be able to prevent discharges from every fire.</p> <p>In addition, BMP implementation may not necessarily impose additional costs. BMPs like using less foam may lead to cost savings.</p>	
ACCWP-77 Oakland-47	C.15.b.iii.(5)	<p>1) Greatly increases reporting and administrative requirements. The tracking and reporting requirements in this provision are excessive, 2) contain errors, and 3a) some are infeasible such as the requirement to track and report the quantity and rate of water and foam concentrate discharged to storm drains/ waterways and 3b) the point of discharge. 4) Reporting requirements should instead be developed by the Working Group.</p>	<p>1) Please see the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>2) The comment says that the tracking and reporting requirements contain errors, but does not give any examples of errors. We are not aware of any.</p>	<p>Please see the revision proposed for the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-</p>

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Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>3a) We disagree that it is infeasible to track and report the quantity of water and foam concentrate discharged to storm drains/waterways and the point of discharge. We have received such reporting for numerous discharges of a similar nature. Where precise volumes cannot be measured, reasonable and reliable estimates may nonetheless be possible.</p> <p>We disagree that reporting on the point of discharge is infeasible. –In fact, a primary responsibility of the Permittees is to be able to track non-stormwater into and from their MS4s, and the Permittees have claimed that they have sufficient knowledge of their MS4 systems to facilitate this type of tracking.</p> <p>Please see the response to the following combined comment, above, regarding C.5.f which tasks the Permittees with assessing whether their MS4 maps need to be updated:</p> <p>CFCA-3 CCCEFC-3 CCCWP-89 Oakland-45,46 San Jose-8 SCVURPPP-150,159,163,164,167,168 SMCWPPP-285,295,299,300,303,304</p>	<p>14d SMCWPPP-287</p> <p>Please also see the proposed revision for the following combined comment, above:</p> <p>CFCA-3 CCCEFC-3 CCCWP-89 Oakland-45,46 San Jose-8 SCVURPPP-150,159,163,164,167,168 SMCWPPP-285,295,299,300,303,304</p> <p>Please also see the proposed revision for the following combined comment, above:</p>

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Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>However, as we intend to engage in conversation with Permittees and other relevant parties about what reporting is feasible, the specific reporting requirements have been removed from the Tentative Order, and deferred to the Firefighting Discharges Report that will be developed by the Working Group. Please see the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>Please also see the response to the following combined comment, above:</p> <p>CCCWP-88 SCVURPPP-14b SMCWPPP-35</p> <p>4) We agree and have made this change.</p>	<p>CCCWP-88 SCVURPPP-14b SMCWPPP-35</p>
Solano-13	C.15.b.iii.(5) (a)	<p>Edit to read: Beginning in 2026, whenever 5 gallons or more of firefighting foam concentrate – or the reportable quantity ... Reasoning: By 2026 we would anticipate the BMPs, SOPs, and</p>	<p>Specific reporting requirements have been removed and deferred to the Working Group.</p> <p>Please refer to the response to the following combined comment, above:</p>	<p>See the revision proposed for the following combined comment:</p>

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Provision C.15. – Exempted and Conditionally Exempted Discharges**

Comment No.	Provision	Comment	Response	Proposed Revision
		trainings will be in place and emergency response networks familiar with appropriate response protocol. Prior to that, we would be trying to measure and manage an issue without all the appropriate information and collaboration in-place.	ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287	ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287
SCVURPPP-169 SMCWPPP-305	C.15.b.iii.(5) (a)	<p>1) This is a significant effort of data collection for an emergency response situation.</p> <p>2) In addition, if discharge is reported to State Warning Center (i.e., Cal OES) these reports are provided to the Water Board. Therefore, this is duplicative reporting requirements.</p> <p>3) Given the jurisdictional issues previously discussed, it is unclear how Permittees would require fire departments to submit this information for their Annual Reporting requirements.</p> <p>4a) Municipal fire department representatives do not believe these specific requirements are needed or appropriate.</p>	<p>1) We disagree. However, we have removed the specific reporting requirements. Please refer to the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>2) For this Permit term, we will leave this up to the consideration of the Working Group. Please refer to the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46</p>	<p>1) Refer to the proposed revision for the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>2) Refer to the proposed revision for the following combined</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
		<p>4b) Recommend replacing the specific requirements with language that would encourage participation in a stakeholder group that would discuss options for fire departments and/or Permittees to address water quality concerns related to firefighting discharges.</p>	<p>SCVURPPP-14d SMCWPPP-287</p> <p>3) Regarding the comment that stormwater program staff cannot dictate requirements to fire departments within the same municipality, please refer to the response to the following combined comment, above:</p> <p>ACCWP-77,78,81,82 CFCA-2 CCCEFC-2 CCCWP-87,90 SCVURPPP-14b,14c,150,154,159,165,166,167,168,172 SMCWPPP-35,36,37,285,287,290,295,301,302,303,304,307</p> <p>Regarding the comment about jurisdictional issues, please refer to the response to the following comment, above: ACCWP-78.</p> <p>4a) We have removed all specific reporting requirements. Please refer to the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46</p>	<p>comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>3) Refer to the proposed revision for the following combined comment, above:</p> <p>ACCWP-77,78,81,82 CFCA-2 CCCEFC-2 CCCWP-87,90 SCVURPPP-14b,14c,150,154,159,165,166,167,168,172 SMCWPPP-35,36,37,285,28</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
			<p>SCVURPPP-14d SMCWPPP-287</p> <p>4b) Please refer to the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>	<p>7,290,295,301,302,303,304,307</p> <p>Please also refer to the proposed revision for ACCWP-78.</p> <p>4a) Please refer to the proposed revision for the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>4b) Please refer to the proposed revision for the following combined</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
				comment, above: ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287
SCVURPPP-170 SMCWPPP-306	C.15.b.iii.(5) (b)	<p>1) This reporting is duplicative of the reporting to the State Fire Marshal under SB 1044. This requirement should be removed from the MRP and Water Board staff can obtain the required information from the State Fire Marshal. At a minimum the reporting requirements should match the SB 1044 reporting requirements to reduce the administrative burden of collecting slightly different information for two regulatory agencies.</p> <p>2) In addition, this section should specify "use of foam by municipal Fire Department."</p> <p>3) Delete reporting requirement.</p>	<p>1) For this Permit term, we will leave this to the consideration of the Working Group. Please refer to the response to the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p> <p>2) We disagree with the requested specificity, because Permittees are responsible for all non-stormwater that enters and discharges from their MS4s. However, this reporting requirement has been removed – see part 1) of this response, above.</p>	<p>Please refer to the proposed revision for the following combined comment, above:</p> <p>ACCWP-77,79,80 CFCA-1 CCCEFC-1 CCCWP-90 Oakland-46 SCVURPPP-14d SMCWPPP-287</p>

**Response to Comments on September 10, 2021, Tentative Order
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Comment No.	Provision	Comment	Response	Proposed Revision
			3) See part 1) of this response, above.	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.16. – Discharges to Areas of Special Biological Significance**

Comment No.	Provision	Comment	Response	Proposed Revision

No comments were received on Provision C.16.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
CCCWP-91	C.17	<p>The Tentative Order would place responsibilities on stormwater programs that are rightfully placed on social services and mental and public health professionals. Permittees do not have the expertise to address homeless populations on their property.</p> <p>Some of the provisions require Permittees to perform activities that would dehumanize homeless residents, and even criminalize the sad fact that they have no home. Permittees should not be placed in the difficult position of choosing permit compliance over the legal and societal constraints associated with addressing the needs of their homeless populations.</p> <p>The provision should be written about the discharge[s], not about homeless populations.</p>	<p>We disagree. C.17 would require Permittees to take actions to protect water quality that are flexible, appropriately consider the challenging nature of unsheltered homelessness and the range of actors involved, and appropriately expect and encourage the Permittees to coordinate internally and amongst themselves. Non-stormwater discharges associated with unsheltered homelessness, including human waste and trash, are a significant water quality concern because they adversely impact water quality and public health. While C.17 is intended to ensure that Permittees implement appropriate control measures for such discharges, it is not meant to criminalize homelessness or to spur Permittees to conduct sweeps, for instance, in the name of water quality. Instead, C.17 would provide flexibility to the Permittees to consider the challenging nature of unsheltered homelessness when taking actions to protect water quality and to coordinate internally and with one another in developing and implementing BMPs or programmatic solutions.</p> <p>For instance, C.17.a.i.2.c encourages Permittees to evaluate whether long-term, non-water quality driven measures, such as the provision of housing and supportive</p>	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>services, correlate to reduced non-stormwater discharges associated with unsheltered homelessness over time. Similarly, C.17.a.i.2.a and (b) require Permittees to coordinate and evaluate water quality controls and strategies that are already in place and working within the region, building on the substantial work already being completed by permittees such as Oakland, East Palo Alto, Fremont, and San Jose, and by associated NGOs and public health agencies.</p> <p>Implementation focuses on understanding the scope of the discharges, and developing, sharing, and implementing best management practices to address them. C.17 also reflects the reality that effectively addressing these discharges involves coordination with unsheltered homeless populations, service providers, and others who are involved. For example, in the absence of coordination with unsheltered homeless populations, efforts to collect trash or provide sanitary services may be significantly less effective.</p> <p>In the absence of C.17's more-flexible language, and its emphasis on coordination and long-term solutions, Permittees would be subject to enforcement for violation of the MRP's prohibition on non-stormwater</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>discharges. The Fact Sheet recognizes that such enforcement could have the unintended consequence of diverting limited resources currently being used to assist unsheltered homeless populations or encouraging temporary actions that could simply shift the location of non-stormwater discharges. Thus, C.17 is designed to avoid putting Permittees in the “difficult position of choosing permit compliance over the legal and societal constraints associated with addressing the needs of their homeless populations.”</p> <p>The commenter’s distinction between “stormwater programs” and, implicitly, the municipalities that are the Permittees is concerning. The Permittees are responsible for discharges to and through their MS4s. Many have established stormwater programs within their municipality, which programs have significant, although usually not sole, responsibility for Permit implementation. C.17 supports both internal and external coordination of the type that the Permittees regularly have engaged in since the start of the NPDES stormwater program thirty years ago as a part of addressing discharges to their MS4s. As examples, Permittee stormwater programs regularly coordinate with public works on capital improvement projects, with their planning departments on new and redevelopment projects, and with</p>	

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Comment No.	Provision	Comment	Response	Proposed Revision
			<p>external entities, like industry groups or businesses, on source controls and trash controls. While unsheltered homelessness is challenging, and involves in some cases somewhat different players, categorically this coordination is the same kind of work Permittees have done in the past to address problematic discharges. In addition, permittees (e.g., Oakland and San Jose) are already coordinating internally and with NGOs.</p>	
CCCWP-92	C.17	<p>The Tentative Order has homeless[ness]-related requirements dispersed in several other provisions, such as C.5, C.8, and C.10. If the Water Board decides that decentralizing homeless requirements throughout the permit is the best approach, then eliminate provision C.17, and eliminate aspects of the decentralized permit provisions that do not pertain to stormwater but pertain more to social, mental, and public health services.</p>	<p>We do not agree that changes are needed. The Tentative Order’s requirements for discharges associated with unsheltered homelessness are centralized in C.17, and appropriately coordinated with language in other provisions. We recognize that Permittee actions to respond to requirements in other provisions, such as actions to control trash pursuant to C.10, may provide a benefit with respect to certain non-stormwater discharges associated with unsheltered homelessness in some locations. However, they are not sufficient to address the range of non-stormwater discharges and locations considered in C.17.</p> <p>As discussed above, coordination within and among Permittees is critical to ensuring that limited resources to address unsheltered homelessness are used efficiently. C.17</p>	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>encourages Permittees to consider non-water quality related programs' effects on water quality as a way of conserving resources and avoiding the unintended consequences of prioritizing water quality over other humanitarian concerns.</p> <p>See also response to CCCWP-91 and, for example, SCVURPPP-19 in C.2, F5C-2-2 in C.5, and ACCWP-32 in C.5.</p>	
<p>CCCWP – 93, SCVURPPP – 183, Oakland & San Jose – 7, SMCWPPP – 32, 318, Pleasanton - 1</p>	<p>C.17</p>	<p>C.17 language such as "ensuring implementation of control measures" assumes an authority over homeless populations and authority over the various agencies that assist homeless populations that stormwater programs do not have. The Tentative Order is placing responsibilities on stormwater programs in an area that is currently the responsibility of social services, and mental and public health professionals. Stormwater programs could assist these other agencies in addressing homeless problems specific to the expertise of stormwater programs and advocate for homeless services that include mitigating impacts to water quality, but stormwater programs cannot</p>	<p>See Master Response Identifier C.17-1.</p> <p>See also response to CCCWP-91.</p>	<p>None.</p>

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Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
		determine which control measures are "appropriate" nor "ensure" they will be implemented.		
CCCWP - 94	C.17.a.i.2	Addressing homelessness is a complex multi-agency effort, led by social services, public, and mental health departments in the county. Asking a stormwater program to develop recommendations and a report on how these agencies should improve their work effort, while ensuring the protection of public health, does not make sense or result in an efficient use of limited resources. Stormwater programs do not have the expertise to determine an overall timeframe for reducing homeless impacts nor identify the milestones to be completed within the timeframe. Nor do the Permittees believe that addressing discharges from homeless populations is necessarily capable of being achieved within a specific timeframe.	<p>We agree that addressing homelessness is a complex multi-agency effort and that stormwater programs have an important role within this effort. However, C.17 does not “ask...a stormwater program to develop recommendations on how [social services, public and mental health departments] should improve their effort.” The focus of C.17 is squarely on the water quality impacts of discharges associated with unsheltered homelessness. As discussed above, C.17 requires the Permittees to coordinate on developing BMPs and other control strategies, so as not to duplicate efforts, and to consider the water quality impacts of long-term strategies to reduce homelessness.</p> <p>MRP Permittees, such as the cities of Oakland and Mountain View, are already acting to address problematic discharges from homeless encampments, for example through the establishment of formalized RV encampments or RV safe parking areas where RV waste can be appropriately collected and disposed using mobile services. Oakland, Fremont, and San Jose have had some success in establishing formalized encampments and are also</p>	None.

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			<p>directing resources into affordable housing. Similarly, a few permittees have a dedicated outreach team that can offer emergency shelter, meals, showers, and other basic needs while working to match individuals experiencing homelessness with an appropriate housing program. Oakland and San Jose have established coordinated cross-departmental efforts to respond to the challenges of homelessness. These are just a few examples of measures being implemented by MRP Permittees to address discharges from homeless encampments to receiving waters, and that involve coordination between different departments and agencies.</p> <p>There will be a continuing need to address these non-stormwater discharges given the size of Bay Area populations experiencing unsheltered homelessness and associated challenges, such as the cost of housing and limited availability of jobs and social services. For example, according to a recent article in the East Bay Times, recent data suggest Santa Clara County’s efforts to get people off the street, and prevent them from ending up there in the first place have been working. In 2019, the county counted 4,771 unhoused people who reached out for services for the first time. Last year (2021), that number</p>	

**Response to Comments on September 10, 2021, Tentative Order
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			<p>dropped to 3,172 — a 33% reduction. The county is also making progress in building permanent, affordable housing, with 830 new homes in 9 developments funded by a housing bond. While these seem to be helping, additional expansion in affordable housing options are still needed to make a noticeable dent in the county’s population experiencing unsheltered homelessness, indicating the ongoing need for measures to protect water quality (Marisa Kendall, “It’s getting better: New Santa Clara County homeless numbers show improvement,” East Bay Times, Feb. 17, 2022, accessed at: https://www.eastbaytimes.com/2022/02/17/its-getting-better-new-santa-clara-county-homelessness-numbers-show-improvement/).</p> <p>Please see also responses to CCCWP – 91 and 93.</p>	
<p>CCCWP – 95, SCVURPPP – 179, 184, San Mateo County – 22, SMCWPPP – 21, 314, 319,</p>	<p>C.17.a.ii.(1)</p>	<p>C.17.a.ii.(1) requires each Permittee to submit a map locating homeless residents in relation to the MS4 system and other water bodies. Tracking and locating homeless residents on maps to the level necessary to identify drainage pathways into the MS4 system would be a dehumanizing</p>	<p>See Master Response; Response Identifier C.17-2.</p>	<p>Requirements in C.17.a.ii.(1) have been revised.</p>

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Comment No.	Provision	Comment	Response	Proposed Revision
Pleasanton – 3, Oakland – 50, ACCWP – 87, Solano - 10		<p>effort. The "point in time" census information on homelessness is displayed in a heat map format as a sign of consideration for the plight that homeless residents find themselves in. Permittees should not be asked to track and locate homeless residents. The term "point in time" is used to underscore that homeless populations are highly nomadic in nature and the census data is simply valid for a small window of time. With this understanding, the value of a mapping requirement seems questionable.</p> <p>Furthermore, the maps and data being requested will only provide a "point in time" look based on the homeless population and encampments at the time of reporting. This data request does not further the overall goal of ensuring implementation of appropriate control measures.</p>		
CCCWP – 36, SCVURPPP – 181, 185, SMCWPPP – 316, 320,	C.17.a.ii	Remove references from the permit that relate to clean drinking water or sanitation services, include a reference "to the extent practicable" when requiring	Comment noted; language in C.17.a.(ii).(3) relating to the provision of clean drinking water has been removed. The provision of sanitation services, however, is tied to a means of addressing discharges from	Edits made to language in C.17.a.ii.(3)

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Oakland - 48		Permittees to identify and implement management practices that are performed by other agencies, and remove the requirement to evaluate and assess the effectiveness of the management practices.	homeless encampments to the MS4 and therefore has not been removed. In addition, language requiring that Permittees evaluate and assess the effectiveness of their implemented best management practices is crucial to understanding the effectiveness and success rate of implemented measures.	
San Jose – 46, SCVURPPP – 13, SMCWPPP - 30	C.17	This provision should be removed from the permit, since it puts an unnecessary burden on staff focused on providing shelter to unhoused individuals. The requirements proposed are primarily intended to inform Water Board staff which can be achieved separately from the permit and in a way that does not redirect limited resources away from housing people, which this requirement would do.	See response to CCCWP-91 and 93.	None.
SCVURPPP – 173, San Mateo County – 7, SMCWPPP – 33, 308	C.17	Requirements in C.17.a.i.(1) would require additional resources to gain an understanding of homeless populations; this entire provision should be incorporated as a subprovision into provision C.5 - Illicit Discharge Detection and Elimination, with recognition that traditional illicit discharge enforcement procedures are not	See Master Response Identifier C.17 -3.	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>appropriate for these types of discharges.</p> <p>An exemption for all requirements should be allowed if a Permittee has no known permanent homeless encampments or if populations in the Permittees' jurisdictions are truly transient.</p>		
<p>SCVURPPP - 174, SMCWPPP – 303</p>	<p>C.17.a.i</p>	<p>Requirements in C.17.a.i.(2) would require additional resources; Remove this subprovision and incorporate a requirement into C.5, as appropriate, that would require that Permittees communicate successful BMP implementation among MRP permittees by conducting a workshop at the countywide or regional scale.</p>	<p>The BMP report required in C.17.a.i.(2) is intended to foster (and prioritize) regional collaboration between Permittees.</p> <p>Permittees may conduct workshops as one method of performing outreach, but are still expected to develop and submit a BMP report as described in C.17.a.i.(2)</p> <p>Also see responses to ACCWP - 32 in C.5, and CCCWP – 93 and SCVURPPP – 173</p>	<p>None.</p>
<p>SCVURPPP – 175, San Mateo County – 21, SMCWPPP – 310 SCVURPPP – 176,</p>	<p>C.17</p>	<p>C.17.a.i.(2)(a) and C.17.a.i.(2)(b) would require additional resources to produce report. Remove sub-provision and incorporate a requirement into C.5, as appropriate, that would require that Permittees report in summary format on actions that are currently</p>	<p>C.17.a.i(2)(a) and (b) are intended to encourage Permittees to share useful information and avoid duplicating efforts, as described in response to CCCWP-91 -92, and -93, above.</p> <p>See also response to SCVURPPP – 173 for why C.17 was not included in C.5.</p>	<p>None.</p>

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP – 180, SMCWPPP – 311, 315, ACCWP - 85		being implemented to address water quality concerns associated with homeless encampments.		
SCVURPPP - 177, SMCWPPP – 312, Oakland – 49, ACCWP – 86, Solano – 9,	C.17.a.i	C.17.a.i.(2)(c) would require additional resources to produce report. Remove requirement. Not directly related to water quality concerns.	See Master Response Identifier C.17- 4.	None.
SCVURPPP – 178, SMCWPPP 313	C.17	C.17.a.i.(2).(c) requires additional resources to produce report. Remove subprovision and incorporate a requirement into C.5, as appropriate, that would require that Permittees report in summary format on existing and planned collaborative actions to address water quality concerns associated with homeless encampments.	See response to SCVURPPP – 173.	None.
SCVURPPP – 182, SMCWPPP – 317	C.17	Requirements in C.17.a.ii.(4) will require additional resources to produce.	Comment noted. We disagree that C.17.a.ii.(4) will require additional resources. C.17.a.ii.(4) requires that Permittees use information generated through biennial point-in-time census surveys and related	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
			information to review and update their BMP implementation practices. This important and reasonable requirement is intended to ensure that Permittees' implemented BMP practices are appropriately tailored to the population and needs of their unsheltered homeless residents. It is also cost efficient relative to other alternative approaches because it helps to ensure that Permittees do not waste time implementing BMPs in areas where they are not needed.	
Friends of 5 creeks – 2	C.17	In fairness, local agencies are dealing more humanely and effectively with the homeless today than years ago. However, this may be due to pressure and possible costly consequences. Please take a positive and cooperative role in addressing our problem of homelessness – but don't promise local governments what amounts to a five-year license to dally.	Comment noted. See response to CCCWP-91.	None.
Save the Bay – 10 Baykeeper and Law Foundation - 3	C.17	Rather than directing permittees to lead this effort (the development of a BMP implementation report), we urge the Board to develop this set of best practices with Permittee participation and feedback. The permit also must explicitly discourage encampment sweeps as a preferred method of trash	The Water Board is not dictating how the Permittees work with their unsheltered homeless populations. As noted in our response to CCCWP-91, we developed C.17 as a way of encouraging Permittees to think holistically about addressing homelessness and to disincentivize short-term solutions, like encampment sweeps, that do not address the root causes of homelessness	Language has been added to the Fact Sheet discouraging the practice of encampment sweeps.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>control. Providing trash receptacles and collection to encampments while allowing social services adequate time to assist unhoused individuals will help to ensure that water quality improvements are achieved while minimizing trauma.</p>	<p>and therefore do not reduce discharges in a meaningful or lasting way.</p> <p>We agree that encampment sweeps are an ineffective means of reducing discharges from homeless encampments over the long term because, in addition to being traumatizing, such practices often simply push the displaced to a new location, where water quality impacts continue. In some cases, relocating encampment residents can benefit water quality and achieve other municipality goals. For example, the City of Oakland worked to re-house homeless residents at Lake Merritt in nearby community cabins and other housing, reducing discharges to the MS4, direct discharges to the Lake, and conflicts between residents walking around the Lake and homeless residents camped nearby. In another example, encampments along certain South Bay creeks are causing significant damage to the creeks by destroying riparian vegetation, destabilizing banks, and discharging trash and hazardous materials including human waste to the creeks. Those residents can also be at significant risk, as shown by the rescues of homeless residents during Coyote Creek flooding in 2017. Working with encampment residents to relocate them to safer and less-environmentally-impacting locations (and</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>then managing those locations to reduce discharges, as appropriate), including supportive housing, is an action that a permittee could take under C.17. While the Water Board cannot prohibit the practice of encampment sweeps, C.17.a.ii.(3) describes other options available to Permittees to address problematic discharges to receiving waters. Given the current scope of the problem and the challenges associated with achieving long-term solutions (such as long-term housing, jobs, and supportive services, etc.) the Water Board’s expectation is that in some cases appropriate shorter-term solutions include managing discharges in place, and by providing formalized locations, such as Oakland’s cabin communities and RV parking areas, where such services can more easily be provided, for example by sanitary and trash collection services.</p> <p>We agree that providing trash receptacles and collection services is a good idea to reduce trash discharges to receiving waters. However, these measures, on their own, aren’t sufficient. C.17 encourages the type of interagency coordination that the commenter supports.</p>	
Pleasanton – 2	C.17	While development of best practices are important and the	The BMP implementation report described in C.17.a.i.(2) may be developed at the regional or countywide level under the respective	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
		intent to encourage regional, countywide, and municipal collaboration to accomplish is commendable, there is no designation of a lead agency or discussion as to how the development of this report will be funded. Without this, it is difficult to determine how this task will be accomplished.	countywide stormwater program. Permittees may fund this collaborative effort through their stormwater programs, as appropriate.	
Pleasanton – 4	C.17	C.17.a. ii (3) requires each Permittee to evaluate and assess the effectiveness of the best management practices, specifically by reporting on the control measures being implemented, the approximate portion of the Permittee's unsheltered homeless population and locations being served by those control measures, and the portion and locations of the Permittee's unsheltered homeless population not reached, or not fully reached, by those control measures. The value of quantitative data is important in assessing effectiveness, however the metrics requested will be difficult to calculate because the number of homeless in a jurisdiction changes daily. It would be better to have a Permittee	Comment noted. Please refer to Response to SCVURPPP – 179 for a discussion of the utility of mapping areas where encampments and similar areas are located, despite the risk that these areas could change. The Water Board does want Permittees to report on the effectiveness of the best management practices employed and control measures used. However, a description of effectiveness without context makes it more difficult for other Permittees to understand or replicate this success, and for the Water Board to evaluate compliance and determine whether modifications to this provision may be desirable in a subsequent permit term. For these reasons, we require additional information in the report.	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
		report on the best management practices employed and describe the control measures used and evaluate their effectiveness.		
ACCWP – 84	C.17	The language in this provision focuses on the social resources and practices undertaken by population-based permittees. Non-population-based permittees, flood control districts, typically partner with surrounding local agencies who provide the social resources while flood control districts focus on clean-up of encampments that impair flood protection services. The last paragraph of the task description (pp. C.17-1-17-2) identifies that flood control districts are potential collaborators with “Permittees,” implying that C.17 applies to population-based permittees and the non-population-based permittees provide support. Review language and revise to recognize the differences between population-based permittees’ and non-population-based permittees’ implementation roles.	Comment noted; language has been revised to recognize that Permittees include flood control districts. The ongoing collaborative work between the City of San Jose and Valley Water is a good example of such efforts.	Language in C.17.a.i.(2).(c) has been revised.
ACCWP – 88	C.17	With the 2023 and 2025 Annual Reports, each Permittee shall report on the implementation of	C.17.a.iii.(1) requires that Permittees' submit their collective BMP implementation report,	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
		management practices and other control measures. The provision essentially requires the submittal of the same report required in item iii.(1). The two reports should be combined.	as described in Provision C.17.a.i by September 30, 2023. C.17.a.iii.(3), on the other hand, requires that Permittees report on their individual identified and implemented BMP measures, as described in C.17.a.ii.(3), to address discharges associated with homelessness that impact water quality and public health including evaluating and assessing the effectiveness of those measures.	
Baykeeper & Law Foundation – 3	C.17	The Board must revise C.17 to explicitly center the needs of unsheltered populations and prioritize the human right to water for all.	This comment is general and vague. We disagree that a revision is needed. C.17 is an entirely new provision that recognizes the needs of the homeless population while still requiring protection of water quality. Since this is a stormwater permit, it is inappropriate to prioritize the human right to water.	
Baykeeper & Law Foundation – 5	C.17	From a practical standpoint, this mapping exercise is inappropriate, as it does not reflect the mobile nature of encampments. Resources spent on this mapping exercise would likely be better spent on providing social services themselves. Additionally, the mapping exercise in C.17.a.ii.(1) may have unintended consequences harmful to unsheltered populations. For example, these maps could be used to prioritize encampment	We disagree. See responses to SCVURPPP – 179 and CCCWP – 95.	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.17. – Discharges Associated with Unsheltered Homeless Populations**

Comment No.	Provision	Comment	Response	Proposed Revision
		sweeps, causing unsheltered people to move further away from services, to less accessible locations, to avoid sweeps.		

**Response to Comments on September 10, 2021, Tentative Order
Provision C.18. – Control of Sediment Discharges from Coastal San Mateo County Roads**

Comment No.	Provision	Comment	Response	Proposed Revision
San Mateo County-23	C.18.a.i	<p>Requires Road Erosion Inventory to “reduce road-related erosion from hydrologically connected County roads.”</p> <p>There is still uncertainty around the distinction between natural erosion and road-related erosion.</p> <p>Provide description or definition for Road-Related Erosion. Define the natural baseline.</p>	<p>Additional clarifying text to define road-related erosion has been added to the first paragraph of C.18. We also direct the County to the discussion of road-related erosion provided in the Handbook for Forest, Ranch and Rural Roads which is referenced in C.18.</p>	<p>Revised first paragraph of C.18 to include additional description of road-related erosion.</p>
San Mateo County-24	C.18.b.i	<p>Requires a prioritized list and schedule of actions to reduce road-related erosion.</p> <p>A specific schedule cannot be provided since projects are largely dependent on permits issued by other agencies.</p> <p>Change “schedule of actions” to “actions.”</p>	<p>Schedules are required and should be based on a best estimate of time required for permit approval by other agencies. Schedules may include flexible timelines to account for project tasks outside the County’s control, such as the time required for permit approval.</p>	<p>None.</p>
San Mateo County-25	C.18.c.ii.(3)	<p>New roads constructed on hillsides exceeding 5% shall be constructed as storm-proofed roads.</p> <p>There is no specific start date for this requirement and no clarity on how to treat projects that are currently in the design, permitting,</p>	<p>Our definition of “storm-proofed road” is lengthy and specific, and described in C.18.c.ii.(3). Consequently, a definition is not provided in the glossary.</p> <p>We added text to C.18.c.ii(3) to clarify that new County-maintained roads under construction within one year of the start of</p>	<p>Text added to C.18.c.ii.(3), and the word ‘permit’ is capitalized in C.18.b.ii.(2) for consistency.</p>

**Response to Comments on September 10, 2021, Tentative Order
Provision C.18. – Control of Sediment Discharges from Coastal San Mateo County Roads**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>or construction phases.</p> <p>Add “storm-proofed road” to definitions in permit and add a start date to the requirement, including adding a clarification that road plans prior to the start date should be exempt.</p>	<p>this Permit term are exempt from the “storm-proofed road” requirement.</p>	
San Mateo County-26	C.18.c.ii.(3)	<p>Storm-proofed roads is defined by Weaver et al. (2015 Chapter 6)</p> <p>Note that Weaver design criteria are more suitable for Parks Department road setting (e.g., gravel, base rock) rather than the paved condition of Public Works Department roads.</p> <p>No specific changes requested.</p>	<p>Comment noted.</p>	<p>None.</p>
San Mateo County-27	C.18.c.ii.(3)(k)	<p>For new roads constructed on hillsides exceeding 5%, ensure that road surfaces and ditches are hydrologically disconnected from stream and stream crossing culverts</p> <p>Note that this is typically not feasible due to constraints of right-of-way and roads being along streams, which is the natural low point of the system.</p>	<p>We partially agree. While it is true that it may not be feasible to hydrologically disconnect some road segments along streams, improvements can be made in many cases. To this end, we added “to the maximum extent feasible” after the word “culvert” in C.18.c.ii(3)(k).</p> <p>Methods and potential solutions to address road-related sediment erosion are discussed in the references provided in C.18. Hydrologic connectivity is defined in</p>	<p>Text added to C.18.c.ii.(3).(k)</p>

**Response to Comments on September 10, 2021, Tentative Order
 Provision C.18. – Control of Sediment Discharges from Coastal San Mateo County Roads**

Comment No.	Provision	Comment	Response	Proposed Revision
		Please define "hydrologically disconnected" and potential solutions if the stream is the receiving water for discharge of these ditches.	C.18.a.i, which includes an explanation of the distinction between hydrologically connected versus hydrologically disconnected roads.	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.19. – Cities of Antioch, Brentwood, and Oakley, Unincorporated Contra Costa County, and the
Contra Costa County Flood Control and Water Conservation District**

Comment No.	Provision	Comment	Response	Proposed Revision
CCCWP – 97	C.19.d.ii.(1)	Recommend moving submittal date of Control Measure Plan to November 1, 2022, from August 1, 2022.	We have revised the submittal date as requested. It is reasonable to provide more time in this situation to ensure that an adequate plan will be submitted. Moreover, Water Board Region 5 concurs.	Date revised.
CCCWP – 98	C.19.iii.(1)	Recommend first submittal of Annual Mercury Monitoring Plan be due on Oct 1, 2022, and submitted with the Urban Creeks Monitoring Report (March 31) thereafter.	See response to CCCWP – 97.	Schedule revised.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.20. – Cost Reporting**

Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP-186 SMCWPPP-321 San Mateo County-28	C.20.a	Cost reporting required via the State Auditor. Will require additional resources above MRP 2. Work Group worked with Water Board staff to craft language. Should be clear that the purpose of cost reported is for regulators to understand cost of compliance and not to compare Permittees' costs.	The guidance for obtaining MS4 Permit implementation costs from Permittees has been developed by the State Water Board's Office of Research, Planning, and Performance. The objectives of the guidance are for the Water Board and the public to obtain adequate, consistent, and comparable information on the storm water management costs local jurisdictions incur, and for the Water Board to base decisions on that information. Although the guidance allows flexibility in selecting the specific reporting categories and information that will be included in the Permittees' cost reporting framework, comparing compliance costs and identifying trends over time is still an essential component of the guidance.	None.
SCVURPPP-187 SMCWPPP-322	C.20.b.i	Work Group worked with Water Board staff to craft language to allow development of acceptable framework rather than conforming to unacceptable State Water Board format. Provide minor modifications to Admin Language to fix incorrect subprovision reference and delete "allow for comparability between Permittees."	The subprovision reference correctly includes both components of the fiscal analysis requirements under 40 CFR 122.26(d)(1)(vi) and 40 CFR 122.26(d)(2)(vi). Please also see response to SCVURPPP-186.	None.
SCVURPPP-188	C.20.b.ii	Exclude requirement to identify source of funds and reporting of	We disagree. For each year of the permit, a fiscal analysis that includes the source of	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.20. – Cost Reporting**

Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-323 ACCWP-89		estimated future year costs, as these are not required by federal regulations or to address requirements of the State Auditor.	funds is required by 40 CFR 122.26(d)(2)(vi), as discussed in the Fact Sheet. As such, they must be included.	
SCVURPPP-15 SMCWPPP-38 CCCWP-100 SCVURPPP-189 SMCWPPP-325 ACCWP-91 San Jose-47	C.20.c.i	Extend the deadline for the development of the framework to June 30, 2023. The proposed development of this framework within six months of the permit's effective date is not feasible given the recent experience of other stormwater programs in developing cost reporting frameworks. Timeframe does not allow for adequate time for development and vetting of framework. Extending the deadline also allows Permittees to incorporate best practices and guidance from the planned State Water Board STORMS Project 4c: Identify Municipal Storm Water Permit Compliance Cost.	We have revised the deadlines as requested. It is reasonable to extend the deadlines to provide more time to ensure that a reasonable framework will be developed and allow for effective collaboration between Permittees.	Deadline has been extended as requested.
SCVURPPP-15 SMCWPPP-38 ACCWP-91 CCCWP-101	C.20.c.ii	Timeframe does not allow for adequate time Permittees to implement change to their financial accounting systems, begin implementation of framework, and develop and implement tracking and reporting tools.	Please see response to SCVURPPP-15.	Deadline has been extended as requested.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.20. – Cost Reporting**

Comment No.	Provision	Comment	Response	Proposed Revision
SCVURPPP-190 SMCWPPP-326 San Jose-47		Timeframe to complete and implement framework is inadequate. Modify timeframe to begin reporting with September third (2025) Annual Report under MRP 3, not 2nd Annual Report.		
Baykeeper - 24	C.20	C.20's cost reporting should be used to inform the development of stormwater funding strategies. Municipalities have the legal authority to collect stormwater fees under SB 231, which was signed in 2017. Yet municipalities have yet to develop stormwater fees. Fear of litigation should not drive municipalities' decision.	Comment noted.	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.21. – Asset Management**

Comment No.	Provision	Comment	Response	Proposed Revision
ACCWP-94 CCCWP-102 Oakland-54 SCVURPPP-16,191,192,193,194,196,199 SMCWPPP-39,40,327,328,329,330,331,332,334 San Mateo County-29	C.21	<p>1) This Provision will require substantial cost and effort to implement.</p> <p>2) Oakland-54: To adequately meet this requirement would require an expenditure of effort that could easily cost millions of dollars.</p> <p>3) SCVURPPP-191, SMCWPPP-327: If this provision is a priority then other requirements in the permit should be de-prioritized and removed to accommodate for the additional costs and resources permittees will incur to develop this plan.</p> <p>4) SCVURPPP-191, SMCWPPP-327: This new provision is a significant and costly new effort that would require some coordination among departments, which use different systems for management of other assets.</p> <p>5) SCVURPPP-16,192, SMCWPPP-39,40: Given the required cost and effort, delay the submittal of the Asset Management Plan from June 30,</p>	<p>1) While the Provision will require some cost and effort to implement, the costs are reasonable and required by federal regulations (see Fact Sheet section for C.21). We considered the potential costs of asset management systems in the Fact Sheet (Section IV.E.4.d, Economic Considerations – Program Costs – New provisions), and found that Permittees were collecting a substantial portion of the required information with existing systems, which could be used or modified to implement C.21. We also worked with the Permittees to consider how to assess asset performance, and agreed that it could be based on the asset condition as observed during regular inspections, which the Permittees were already completing, or requiring to be completed, and tracking. The Fact Sheet notes that San Diego developed and implemented a much more extensive asset management system that tracks “soft” and “hard” stormwater assets, as well as San Diego’s flood management infrastructure—a total of approximately \$3 billion in infrastructure. That system was estimated to cost \$2 million over 5 years to develop, and an additional \$2 million over the subsequent approximately 8 years to update (e.g., by expanding the asset inventory). Additionally, it has a larger scope because San Diego is larger than any MRP Permittee. The City of</p>	None.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.21. – Asset Management**

Comment No.	Provision	Comment	Response	Proposed Revision
		<p>2025, preferably by 2 years, if not, by 1 year. Delay the start date of implementation, and the start date for reporting on implementation, by the same amount of time.</p>	<p>San Diego has a population of about 1.4 million and an area of about 372 square miles. By comparison, the City of San Jose has a population of about 1 million and an area of about 181 square miles, and the City of Oakland has a population of about 425,000 and an area of about 78 square miles, about one-third of which is water. The remaining MRP Permittees have smaller populations and/or land areas. Because the Permittees are smaller than San Diego and have existing systems to track hard water quality assets, because the categories and number of assets to be tracked are much more limited than San Diego’s system, and because the Permittees are already completing substantial portions of the work involved (e.g., pursuant to C.3.h and C.10.b in MRP 2), it is reasonable to conclude that the costs of complying with C.21 will be substantially less than San Diego’s system.</p> <p>As noted above, the Provision has been crafted to focus on hard assets (e.g., bioretention cells, full trash capture devices, trash receptacles, and pet waste stations), and asset management plans developed under C.21 are expected to incorporate, as appropriate, Permittees’ existing systems for ensuring the effective installation, operation, and maintenance of hard assets (e.g., those required pursuant to C.2, C.3, C.10, C.11,</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.21. – Asset Management**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>C.12, C.14, C.17, C.18, and C.19). The Water Board considered a broader asset management plan approach, such as something similar to the one currently being implemented by the City of San Diego, which includes both hard and “soft” or “programmatic” assets (e.g., public education and information materials, new and redevelopment guidelines, an inspection program for commercial, industrial, and construction sites).²⁴ We found that the system required in C.21 is an appropriately-focused system intended to achieve prioritized water quality outcomes (i.e., via its focus on hard assets), and that for the coming permit term, it is acceptable to manage “soft” assets via their respective provisions and reporting. These steps appropriately minimize the cost of asset management program development and implementation. Additionally, successful asset management programs are expected to reduce overall program costs (e.g., by allowing for planning to complete less-expensive preventive maintenance as opposed to more-expensive rehabilitative or reconstructive maintenance).²⁵ Effective asset management systems should also reduce Permittee staff costs to prepare</p>	

²⁴ City of San Diego, Transportation and Stormwater Dept., Stormwater Div., January 2021. Watershed Asset Management Plan, Version 2.0.

²⁵ U.S. EPA, March 6, 2017. Asset Management Programs for Stormwater and Wastewater Systems: Overcoming Barriers to Development and Implementation.

**Response to Comments on September 10, 2021, Tentative Order
Provision C.21. – Asset Management**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>Annual Reports, because the relevant information will be available as a system report. These should reduce the programs' overall cost.</p> <p>2) We disagree that the provision requires any individual permittee to expend millions of dollars to comply. While C.21.b sets goals that asset management plans must address, the Provision allows substantial flexibility with respect to how Permittees achieve those goals. For example, Permittees may incorporate, coordinate, and/or adapt existing tracking and/or asset management systems and to implement an asset management system that is appropriately scaled to their size and level of complexity. See also response to item (1) immediately above.</p> <p>3) The Tentative Order, and the revisions resulting in the Revised Tentative Order, reflect a prioritized approach that balances required actions, water quality needs, and the recognition that those require resources. As part of the revisions, Water Board staff revised reporting requirements, in some cases removing required reports or delaying their due dates, and reduced information collection (e.g., in C.2. C.4, C.5, C.6, C.10, and C.15).</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.21. – Asset Management**

Comment No.	Provision	Comment	Response	Proposed Revision
			<p>4) We agree that for some Permittees, different hard assets will be implemented by different Permittee departments, and that this will require coordination, which may be similar in nature to how Permittees already coordinate to ensure such assets are appropriately designed, operated, and maintained. See also responses to items (1) and (2), above.</p> <p>5) We disagree. The Tentative Order already allows three years for the development of the Asset Management Plans, and before Permittees have to start implementing them, which we believe is a sufficient amount of time. That also means that there will be approximately only two years of implementation of the Asset Management Plans; those two years are important because they will get Permittees started on asset management, which –as explained in the Fact Sheet – is critical to the performance of their hard assets, and because those two years of implementation are likely to infny) to C.21 for the subsequent Permit term.</p>	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.21. – Asset Management**

Comment No.	Provision	Comment	Response	Proposed Revision
<p>SCVURPPP-191 SMCWPPP-327 San Mateo County-29</p>	<p>C.21</p>	<p>The permit already has requirements in place to ensure hard assets related to water quality are in satisfactory condition. Requirements in this provision should be consistent with, and not duplicate, requirements in C.10.b, C.10.g, C.3.h, and C.3.j.v.</p> <p>San Mateo County-29: MRP 2 already includes requirements for tracking and reporting of operations and maintenance activities and structural control condition. This effort is largely duplicative. Recommend removal of this provision due to redundant reporting requirements in C.2, C.3, C.10, C.11, C.12, C.13, C.14, and C.18. At a minimum, reporting requirements should be reduced per comments submitted in the C/CAG MRP 3 Tentative Order comment letter.</p>	<p>We disagree. Requirements in C.21 are flexible, consistent with the referenced Provisions, and also go beyond them in their programmatic nature and ability to provide benefits including facilitating oversight—leading to more-effective performance over time—and simplifying periodic reporting.</p> <p>To the extent that there are other databases or tracking systems required in other Provisions (e.g., the database or equivalent tabular format tracking system that is described in C.3.h.ii.(4)-(5)) that contain some of the information required by C.21, Permittees may consider adapting those systems to include the information required by C.21. Likewise, other operation and maintenance plans (e.g., the plan described C.3.h.ii.(4)-(5)) may be adapted/modified. Or, in the alternative, existing information could be incorporated into asset management systems developed under C.21, simplifying information organization and reporting.</p> <p>Other specific comments by C/CAG regarding C.21 are addressed separately.</p> <p>See also response to combined comment, above:</p> <p>ACCWP-94 CCCWP-102</p>	<p>None.</p>

**Response to Comments on September 10, 2021, Tentative Order
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Comment No.	Provision	Comment	Response	Proposed Revision
			Oakland-54 SCVURPPP-16,191,192,193,194,196,199 SMCWPPP- 39,40,327,328,329,330,331,332,334 San Mateo County-29	

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Comment No.	Provision	Comment	Response	Proposed Revision
Baykeeper-25	C.21	<p>C.21 must be revised to include MS4 pipes in asset management requirements. Baykeeper generally appreciates the addition of C.21, requiring Permittees to develop and implement asset management plans to “ensure the satisfactory condition of all hard assets constructed during this and previous permit terms.” Footnote 54 defines “hard assets” as “structural controls that serve a water quality function, for example: bioretention cells, pervious pavement systems, full trash capture devices, trash receptacles, and pet waste stations.” While Baykeeper agrees that these structural controls should be monitored and maintained, (1) C.21 should also include the MS4 infrastructure itself. Much of the MS4s in Region 2 rely on aging clay pipes and many municipalities maintain limited or incomplete records of the age, date, location, and quality of their MS4 infrastructure. Given the seismic activity in the region and clay soils, the possibility of cracking in both the sanitary sewer and storm sewer systems is high. Thus, many</p>	<p>(1) We disagree. The commenter’s proposed request regarding the condition of MS4 pipes is addressed in C.5.f, which requires Permittees to “...identify information missing from the current MS4 maps and develop a plan and schedule to compile additional storm sewer system information, considering the potential to identify component locations, size or specifications, materials of construction, and condition.” This information must be submitted with the 2026 Annual Report, and is expected to result in requirements for implementation in the subsequent permit term.</p> <p>While sanitary sewer collection systems are not permitted under the MRP, separate efforts are underway to appropriately maintain collection systems (e.g., systems discharging to EBMUD’s wastewater treatment plant in the East Bay, and to the City of Pacifica’s in Pacifica) which will minimize the potential for sanitary sewer collection system exfiltration to the MS4.</p> <p>(2) What this comment is asking for is already provided by C.21.b.i.(3)(a): Permittees are required to include, in their Asset Management Plans, "A process for prioritizing and scheduling operation and maintenance activities." It is not necessary to specify minimum inspection frequencies in</p>	None.

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		<p>Permittees maintain a high risk of sewage exfiltration from the sanitary sewer system and infiltration to the storm sewer system. But Permittees lack sufficient information about the condition of their MS4 systems and lack condition assessment data. Collecting geographic information system (“GIS”) mapping and closed-circuit television (“CCTV”) data is best practice for any type of underground pipe system, MS4s included.</p> <p>The Board should <u>(2)</u> revise C.21.b.i.(3).(a) to dictate an annual schedule for inspecting all stormwater treatment and flow control BMPs and facilities that are owned, operated, or regulated by the Permittees and should require Permittees to implement appropriate maintenance actions where any damage or defects are discovered as part of the requirements for the Operation, Maintenance, Rehabilitation, and Replacement Plan. The Board should also <u>(3)</u> revise C.21.b.i.(3).(b).(i) to incorporate a storm sewer system condition</p>	<p>C.21.b.i.(3)(a), because a minimum annual inspection frequency of 15-20% of all C.3 controls is already required in C.3.h.ii.(6)(b) (which would lead to inspection of approximately 100% of C.3 controls in each Permit term), and a minimum annual inspection frequency of 100% of all C.10 controls is already required in C.10.b.i.(a) (a greater frequency is required for C.10 controls in High and Very High trash generation areas).</p> <p>(3) Please see response to (1) above.</p> <p>(4) Comment noted. Please see response to (1) above.</p> <p>(5) Please see response to (1) above.</p>	

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		<p>assessment program, given that most Permittees have little data to inform the condition and effectiveness of their storm sewer system.</p> <p><u>(4)</u> A recent report from San Diego State University documented the linkage between the sanitary sewer and the presence of human pathogens in stormwater. The study evaluated the relative inputs of human sewage from direct sources (e.g., homelessness and RV dumping) compared to wet weather sources originating from sanitary sewer infrastructure. They found direct sources represent a small proportion of the fecal indicator bacteria. Untreated wastewater originating from the sanitary sewer system “are likely responsible for the majority of elevated microbial pollutants detected in the San Diego River and its tributaries during storm events.” Researchers found the “efforts to address contamination of the San Diego River and its tributaries and meet wet weather pollution targets should prioritize replacement of cracked or failing</p>		

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Comment No.	Provision	Comment	Response	Proposed Revision
		<p>sewer infrastructure or containment of sanitary sewer overflows.”</p> <p>Additionally, (5) the Climate Change Adaptation Report required by C.21.b.v will be inadequate to accurately assess potential climate change-related threats to assets if Permittees’ MS4 pipes are not included in the analyses. Full trash capture devices will not function properly if they are constantly inundated by Bay waters. Recent studies regarding rising groundwater in the Bay Area due to climate change also extends the amount of the Bay Area that will be impacted beyond areas immediately adjacent to rivers, creeks, and the shoreline.</p>		

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Comment No.	Provision	Comment	Response	Proposed Revision
SMCWPPP-40,335	C.21 & C.21.b.i.(4)	<p>SMCWPPP-40: Allow Permittees to comply with this Provision via the use of existing tracking systems required by other Provisions.</p> <p>SMCWPPP-335: Seems to allow use of existing cloud-based tracking systems (such as the SCVURPPP Stormwater Treatment Measure Data Portal) for (b). Additional resources will be needed to add trash full capture systems and other hard assets to this tool/database.</p>	<p>Comment noted. The Provision does not specify the use of a particular system or systems. There is flexibility for the Permittees to adapt existing tracking systems to meet the C.21 requirements. We agree that the system will need to incorporate or otherwise account for Permittees' hard water quality assets.</p>	None.
ACCWP-92 CCCWP-102,103,105 Oakland-52 SCVURPPP-16,191 SMCWPPP-39,40,327	C.21.b.i.(2)	<p>The proposed language significantly expands the scope of the asset management program beyond the boundaries identified in early discussions.</p> <p>Permittees thought that the asset management requirements would solely include those Permittee owned stormwater treatment systems constructed to meet C.3 regulated projects, C.3 green infrastructure (and related C.11/C.12 green infrastructure provisions), and C.10 full trash capture devices. Redefine hard assets as only including those</p>	<p>C.21.b.i.(2) says: "An inventory... of Permittees' existing hard assets built pursuant to the Provisions cited in Provision C.21.a..." The Provision is already limited to public hard assets.</p> <p>Regarding which hard assets should be included in the Asset Management Plan's inventory as described in C.21.b.i.(2), footnote 54 in the Tentative Order (at the bottom of page C.21-1) give examples of applicable hard assets and is sufficiently descriptive to inform the completion of an asset management system. We do not agree that it should exclude anything other than the three types of controls mentioned in the comment, such as trash receptacles and pet</p>	None.

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Comment No.	Provision	Comment	Response	Proposed Revision
		<p>treatment systems. Because the cited Provisions regulate both public and private entities, the Provision should explicitly state that it applies solely to public assets.</p> <p>Clearly define hard assets and remove the examples. Hard assets should be features of permanent infrastructure and should not include trash receptacles or pet waste stations. These small devices, designed to be mobile, will take a significant effort to track and do not require the same level of maintenance or rehabilitation as features such as full trash capture systems or bioretention facilities.</p>	<p>waste stations, as Permittees also rely on these structural controls for their compliance with the Permit, even though some may not be permanent structural controls. Also, it is not uncommon for these types of controls to be poorly maintained and/or serviced, so it is critical that Permittees track their condition in the same way as other hard assets.</p>	
SMCWPPP-331,332	C.21.b.i.(3)(b)	We appreciate the changes made to this provision to focus on assessment of condition rather than performance.	Comment noted.	None.
ACCWP-93 Oakland-53	C.21.b.i.(3)(b)(i)	<p>The performance should be based on the design specification and not the stormwater volume and pollutant load reduction.</p> <p>Reduce Reporting Burden: Delete “minimum performance level(s), including an assessment of stormwater volume and pollutant</p>	The language referenced in this comment is from the Administrative Draft. The language is significantly different in the Tentative Order.	None.

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		<p>load reduction, necessary to comply with the provisions, including applicable water quality based effluent limitations and receiving water limitations”</p> <p>Replace with “performance level of asset functioning as designed”</p>		
<p>CCCWP-106 San Jose-48</p>	<p>C.21.b.i.(3)(b)(ii)</p>	<p>CCCWP-106: Revise condition assessment language to assess the condition of the assets relative to the design standards. Design standards for the hard assets (listed in the previous comment) are described in the Order and the C.3 Technical Manual. The condition assessment of the assets required by this provision should evaluate whether the system is in place and functioning as per the design standards.</p> <p>San Jose-48: This section is very problematic because facilities are built to design requirements and volume and pollutant load reduction are not measured for specific devices. Revise language in this section to refer to a "condition assessment" that compares a "desired" condition (in which the facility meets design</p>	<p>These comments may be referring to language in the Administrative Draft. The language in the Tentative Order already requires an assessment of "...current performance level and effectiveness, as indicated by condition... Permittees shall base the effectiveness evaluation on, at a minimum, factors such as design, capacity, and condition and function relative to the asset’s design, intended operating conditions, and intended function."</p>	<p>None.</p>

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		requirements and construction installation requirements and is well maintained) to the "current" condition. Remove the language "including applicable water quality-based effluent limitations and receiving water limitations".		
SCVURPPP-195 San Jose-49 SMCWPPP-333	C.21.b.i.(3)(b)(iii)	This Provision is unnecessary, as it is part of the risk-based condition assessment described in C.23.b.i.(3)(b)(ii) above. Delete it.	We disagree. The consequence and likelihood of failure are implicitly, but not explicitly, included in the risk-based condition assessment described in C.23.b.i.(3)(b)(ii). This clarifies that they must be considered in the risk-based condition assessment.	None.
SMCWPPP-336	C.21.b.ii-iv	Comment notes that the start date for implementation of these Provisions is the day after the Asset Management Plan is submitted.	The comment is correct.	None.

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Comment No.	Provision	Comment	Response	Proposed Revision
<p>ACCWP-94 CCCWP-104,107 Oakland-54 SCVURPPP-197,200 SMCWPPP-337</p>	<p>C.21.b.v</p>	<p>1) This is a significant unnecessary new requirement that adds additional cost to the Permit.</p> <p>2) Permittees are already dealing with climate change and do not need the Water Board to insert a duplicative requirement in their NPDES permit.</p> <p>3) The requirement to develop a Climate Change Adaptation Report is written broadly and appears to be beyond the scope of the MRP 3 term and beyond the purview of stormwater programs. Adaptation of stormwater treatment systems (green infrastructure, trash capture devices) for climate change is inherently connected to the larger infrastructure system. There is no agreement in the predictive models regarding potential changes to storm intensity and frequency that would impact the design of bioretention and hydromodification controls. It is premature to consider adapting stormwater treatment systems whose life cycle is shorter than the suggested 50-year planning window for climate adaption.</p>	<p>1) We disagree. As explained in the Fact Sheet, the purpose of the Climate Change Adaptation Report is to ensure that in the long term, as climate change impacts increase, Permittees are able to make necessary adjustments to the design, operation, and maintenance of their hard assets to ensure their satisfactory condition and performance, in response to impacts to those assets associated with climate change. U.S. EPA Region 9's 2014 guidance for incorporating asset management planning requirements into NPDES permits includes a requirement for the assessment of climate change impacts.</p> <p>2) We are aware of some efforts being completed by Permittees to consider the reasonably foreseeable impacts of climate change on urban runoff and their stormwater programs. These include work by SMCWPPP modeling the performance of GSI with respect to controlling flooding associated with modeled increases in precipitation event intensity, duration, and frequency. However, to our knowledge these generally have not extended to other issues around water quality controls, such as consideration of controls' design, operation, and maintenance, and how those should be modified to respond to identified climate change trends. The comment does not</p>	<p>Shifted Climate Change Adaptation Report due date to 2026 Annual Report.</p>

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		<p>4) Any modification of design standards should be a statewide effort. Allow flexibility for development of report at the State level or coordination with statewide efforts (e.g., through CASQA.).</p> <p>5) Keep report focused on the impacts of climate change on water quality assets.</p> <p>6) Remove this Provision or make it optional.</p>	<p>support the claim that the Permittees are already dealing with climate change, nor does it explain what exactly is meant by that. Though Permittees may already be generally investigating climate change impacts, that does not necessarily equate with adequately accounting for existing/future/potential impacts to the hard assets that they rely on for Permit compliance.</p> <p>However, to the extent the Permittees are already sufficiently accounting for such impacts, that would inform the report’s preparation and they can include that in their C.21 reporting generally and in the Climate Change Adaptation Report in particular.</p> <p>3) Climate change is likely to increase the number of extreme/outlier weather events.^{26,27} In particular, more intense storms and more prolonged droughts. Identifying climate change related threats to hard assets is integral to proper asset management. The Permittees do not need to start from scratch on this effort, in fact they are encouraged to start by reviewing the literature. Nor does C.21.b.v task the Permittees with perfectly predicting future impacts and immediately implementing changes to their management</p>	

²⁶ <https://nca2018.globalchange.gov/>

²⁷ https://www.ipcc.ch/site/assets/uploads/2018/03/SREX-Chap3_FINAL-1.pdf

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			<p>approaches; the purpose of the Report is to identify approaches that the Permittees may implement to address climate change threats to hard assets.</p> <p>We disagree that it is premature to begin considering and addressing the potential impacts of climate change on hard assets, as change is happening now and is expected to increasingly have the potential to affect those assets.</p> <p>We agree that the effects of climate change are likely to persist beyond the coming permit term, and that it will be important to consider the Report’s findings in a future permit reissuance. With that in mind, we have revised the Report’s due date to the 2026 Annual Report to allow it to be appropriately considered in the next reissuance.</p> <p>4) The Provision would allow Permittees to coordinate with CASQA or other organizations to develop the required report, as long as the report meets the requirements of C.21.b.v (e.g., by having a San Francisco Bay-specific regional or countywide scale, which is important in part given California’s substantial geographic scope and broad climatic range, and the need to focus information on Permittee hard assets). While we cannot rely on a theorized statewide</p>	

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			<p>effort that may or may not come to pass, should such a statewide effort begin prior to the submittal of the Report, we would encourage the Permittees to participate, share information, and ultimately incorporate findings from that effort into the Report.</p> <p>5) We agree. The Provision is focused on the impacts of climate change on hard water quality assets, as reflected in its text (e.g., “[t]he report shall assess existing, new, and increasing threats from climate change to the condition of Permittees’ inventoried hard assets...”). In addition, the Provision has sufficient flexibility. For example, the report could explain, in part, how certain controls (on which Permittees rely for Permit compliance) will not be affected by climate change.</p> <p>6) We disagree, for the reasons stated above.</p>	
SMCWPPP-338	C.21.c.i	Comment reiterates the Provision.	Comment noted.	None.
SMCWPPP-339	C.21.c.ii.(1)	Comment reiterates the Provision.	Comment noted.	None.
SMCWPPP - 340	C.21.c.ii.(2)	Comment reiterates the Provision.	Comment noted.	None.
SCVURPPP-199	C.21.c.ii.(2)	This is a significant new reporting requirement which would likely carry over into MRP 4. This is a large amount of information to	Comment noted. A substantial portion of the information required here is currently being prepared for different provisions, and while some effort would be involved in coordinating	SCVURPPP-199

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		report annually and much of the data would not change. Request that report frequency be modified to once during the permit term.	the already-collected information within an asset management system, that is likely to simplify reporting and make the information more actionable.	

**Response to Comments on September 10, 2021, Tentative Order
Provision C.22. – Annual Reports**

Comment No.	Provision	Comment	Response	Proposed Revision
ACCWP-95 City of Oakland-55	C.22.a	The additional report submittal due on October 15 of each year is unnecessary. To reduce the reporting burden, delete the additional report submittal requirement.	We agree the requirement is duplicative and have removed the October 15 report submission.	Removed additional October 15 report.

No comments were received on Provisions C.23 – 27.

Staff initiated changes: In addition to the changes made to the Tentative Order in response to comments received, minor staff-initiated changes were also made, for example to fix errors and provide further clarity.