

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

**ORDER NO. R2-2019-0004
NPDES PERMIT NO. CAS612008**

AMENDMENT REVISING ORDER NO. R2-2015-0049 for the following jurisdictions and entities:

The cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, and Union City, Alameda County, the Alameda County Flood Control and Water Conservation District, and Zone 7 of the Alameda County Flood Control and Water Conservation District, which have joined together to form the Alameda Countywide Clean Water Program (Alameda Permittees)

The cities of [Antioch](#), [Brentwood](#), Clayton, Concord, El Cerrito, Hercules, Lafayette, Martinez, [Oakley](#), Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, and Walnut Creek, the towns of Danville and Moraga, Contra Costa County, the Contra Costa County Flood Control and Water Conservation District, which have joined together to form the Contra Costa Clean Water Program (Contra Costa Permittees)

The cities of Campbell, Cupertino, Los Altos, Milpitas, Monte Sereno, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga, and Sunnyvale, the towns of Los Altos Hills and Los Gatos, the Santa Clara Valley Water District, and Santa Clara County, which have joined together to form the Santa Clara Valley Urban Runoff Pollution Prevention Program (Santa Clara Permittees)

The cities of Belmont, Brisbane, Burlingame, Daly City, East Palo Alto, Foster City, Half Moon Bay, Menlo Park, Millbrae, Pacifica, Redwood City, San Bruno, San Carlos, San Mateo, and South San Francisco, the towns of Atherton, Colma, Hillsborough, Portola Valley, and Woodside, the San Mateo County Flood Control District, and San Mateo County, which have joined together to form the San Mateo Countywide Water Pollution Prevention Program (San Mateo Permittees)

The cities of Fairfield and Suisun City, which have joined together to form the Fairfield-Suisun Urban Runoff Management Program (Fairfield-Suisun Permittees)

The City of Vallejo and the Vallejo Sanitation and Flood Control District (Vallejo Permittees)

The California Regional Water Quality Control Board, San Francisco Bay Region, finds that:

FINDINGS

1. Contra Costa County watersheds are under two Regional Water Quality Control Boards' jurisdiction, the San Francisco Bay Water Board and the Central Valley Water Board. The cities of Antioch, Brentwood, and Oakley, and portions of Unincorporated Contra Costa County (County) and the Contra Costa County Flood Control and Water Conservation District (CCCFCWCD) (the East County Permittees) in Contra Costa County are in the Central Valley Water Board's jurisdiction.
2. The East County Permittees are member agencies of the Contra Costa Clean Water Program (CCCWP). CCCWP assists its member agencies – most of whom are within the San Francisco Bay Water Board's jurisdictional boundaries – with tasks that can be done consistently throughout the County.
3. In 1992, the San Francisco Bay Water Board issued the first NPDES permit with requirements for stormwater discharges from municipal separate storm sewer systems (MS4s) in Contra Costa County cities and towns, and the portions of the County and CCCFCWCD located in its jurisdiction. In 1993, the Central Valley Water Board used the permit issued by the San Francisco Bay Water Board as a model and issued an NPDES permit with waste discharge requirements for stormwater discharges from MS4s within the East County Permittees' jurisdictions. In subsequent permit reissuance cycles, each Regional Water Board adopted stormwater permits for Contra Costa County with similar provisions, exercising an inter-regional, collaborative approach for the East County Permittees.
4. On October 14, 2009, the San Francisco Bay Water Board issued its first region-wide NPDES permit, Order No. R2-2009-0074, NPDES Permit No. CAS612008, for stormwater discharges from MS4s in Alameda, Contra Costa, San Mateo, and Santa Clara counties, the cities of Fairfield, Suisun, and Vallejo, and the Vallejo Sanitation and Flood Control District. The Central Valley Water Board used Order No. R2-2009-0074 as a model and adopted Order No. R5-2010-0102, reissuing NPDES Permit No. CAS083313 (for the East County Permittees to discharge stormwater from MS4s in their jurisdictions on September 23, 2010. Where Order No. R2-2009-0074 provisions were sufficient to meet the requirements of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Central Valley Basin Plan) and other Central Valley Water Board policies, the provisions in Order No. R5-2010-0102 were the same as those in Order No. R2-2009-0074. Where different or additional provisions were required to meet the requirements of the Central Valley Basin Plan or other Central Valley Water Board policies, including the Sacramento-San Joaquin Delta Estuary Methylmercury Total Maximum Daily Load (TMDL), those different or additional provisions were included in Order No. R2-2009-0074.
5. On November 19, 2015, the San Francisco Bay Water Board adopted Order No. R2-2015-0049, updating and reissuing waste discharge requirements for stormwater discharges from MS4s in Alameda, Contra Costa, San Mateo, and Santa Clara counties, the cities of Fairfield, Suisun, and Vallejo, and the Vallejo Sanitation and Flood Control District.

6. The East County Permittees submitted to the Central Valley Water Board a report of waste discharge, dated March 4, 2015, for reissuance of their waste discharge requirements under NPDES permit to discharge stormwater runoff from storm drains and watercourses within their jurisdictions. The East County Permittees anticipated that the Central Valley Water Board would reissue their stormwater permit with requirements consistent with the San Francisco Bay Water Board's Order No. R2-2015-0049. However, the Central Valley Water Board was already preparing a region-wide General Waste Discharge Requirements and NPDES Permit for stormwater discharges from MS4s (General Permit) within the Central Valley region.
7. The Central Valley Water Board did not support adopting separate waste discharge requirements for stormwater discharges from the East County Permittees, which would be consistent with the San Francisco Bay Water Board's Order No. R2-2015-0049. The General Permit is significantly different from Order No. R2-2015-0049 and thus would not allow the East County Permittees to continue the collaborative approach through CCCWP. The Central Valley Water Board offered the East County Permittees two options: request a transfer of jurisdiction for stormwater permitting to the San Francisco Bay Water Board or obtain coverage under the General Permit.
8. In the Fall of 2016, the East County Permittees asked the Central Valley Water Board to designate the San Francisco Bay Water Board as the permitting entity for stormwater discharges from their MS4s.
9. In a letter dated January 6, 2017, the San Francisco Bay Water Board and the Central Valley Water Board designated the San Francisco Bay Water Board to regulate MS4 discharges from the East County Permittees. The designation set forth the following conditions:
 - a. The designation is only for MS4 permitting;
 - b. Each Regional Water Board reserves the right to take enforcement actions authorized by law against an East County Permittee for violations of an MS4 permit provision that affects that Regional Water Board's watershed;
 - c. The San Francisco Bay Water Board will consult and coordinate with the Central Valley Water Board in the development of MS4 permit provisions to ensure they adequately reflect and implement the Central Valley Water Board's Basin Plan and policies; and
 - d. The Central Valley Water Board will approve any plans and/or studies required for compliance with the Central Valley Water Board's Basin Plan and policies.
10. This Order amends Order No. R2-2015-0049 to add the East County Permittees. It also allows them extended timelines to come into compliance with specific Order No. R2-2015-0049 provisions and identifies and exempts those Order No. R2-2015-0049 provisions that do not apply to the East County Permittees, and incorporates requirements for the Sacramento-San Joaquin Delta Estuary Methylmercury TMDL and the Sacramento-San Joaquin Delta Diazinon and Chlorpyrifos TMDL.
11. The Fact Sheet attached to this Order contains background information and rationale for this Order's requirements. It is hereby incorporated into this Order and therefore constitutes part of the findings for this Order.

12. This Order is exempt from the provisions of the California Environmental Quality Act pursuant to California Water Code Section 13389.
13. The San Francisco Bay Water Board notified the Permittees named in this Order and interested agencies and persons of its intent to consider adoption of this Order and provided an opportunity to submit written comments.
14. In a public meeting, the San Francisco Bay Water Board heard and considered all comments pertaining to this Order.

IT IS HEREBY ORDERED, pursuant to the provisions of California Water Code Division 7 and regulations adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, that the Permittees shall comply with the following:

1. Order No. R2-2015-0049 is hereby amended as shown in Appendix I and Appendix III. Additions are displayed as underlined type and deletions are displayed as ~~strikeout~~ format.
2. Provision C.16.5, as shown in Attachment II, is hereby added to Order No. R2-2015-0049.
3. This Order shall become effective on March 4, 2019.

I, Thomas Mumley, Interim Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 13, 2019.

Thomas Mumley
Interim Executive Officer

- Appendix I: Revisions to Table of Contents of Order No. R2-2015-0049
Appendix II: Provision C.16.5. to be added to Order No. R2-2015-0049
Appendix III: Revisions to Provisions C.1. and C.17. of Order No. R2-2015-0049
Appendix IV: Fact Sheet

APPENDIX I

**Revisions to Table of Contents of
Order No. R2-2015-0049**

Table of Contents

FINDINGS.....	1
Finding 1: Incorporation of Fact Sheet.....	1
Findings 2-8: Existing Permits.....	1
Findings 9-12: Applicable Federal, State and Regional Regulations.....	2
Findings 13-21: Nature of Discharges and Sources of Pollutants.....	3
A. Discharge Prohibitions.....	5
B. Receiving Water Limitations.....	5
C.1. Compliance with Discharge Prohibitions and Receiving Water Limitations.....	6
C.2. Municipal Operations.....	7
C.3. New Development and Redevelopment.....	12
C.4. Industrial and Commercial Site Controls.....	50
C.5. Illicit Discharge Detection and Elimination.....	56
C.6. Construction Site Control.....	61
C.7. Public Information and Outreach.....	67
C.8. Water Quality Monitoring.....	71
C.9. Pesticides Toxicity Control.....	91
C.10. Trash Load Reduction.....	97
C.11. Mercury Controls.....	107
C.12. PCBs Controls.....	113
C.13. Copper Controls.....	123
C.14. Bacteria Controls.....	125
C.15. Exempted and Conditionally Exempted Discharges.....	133
C.16. Discharges to Areas of Special Biological Significance.....	140
<u>C.16.5. Cities of Antioch, Brentwood, and Oakley, and Unincorporated Contra Costa County and Contra Costa County Flood Control and Water Conservation District Incorporation into NPDES Permit No. CAS612008.....</u>	<u>141</u>
C.17. Annual Reports.....	<u>149</u>
C.18. Modifications to this Order.....	<u>149</u>
C.19. Standard Provisions.....	<u>150</u>
C.20. Expiration Date.....	<u>150</u>
C.21. Rescission of Old Order.....	<u>150</u>
C.22. Effective Date.....	<u>150</u>
Acronyms & Abbreviations.....	<u>151</u>
Glossary.....	<u>154</u>
Attachment A: Municipal Regional Stormwater Permit Fact Sheet.....	A-1
Fact Sheet Attachment C10.....	A-136
Attachment B: Provision C.3.b. Sample Reporting Table.....	B-1
Attachment C: Provision C.3.g. Hydromodification Applicability Maps.....	C-1
Attachment D: Provision C.8. Standard Monitoring Provisions.....	D-1
Attachment E: Provision C.10. Supporting Information.....	E-1
Attachment F: Provision C.16. ASBS Special Protection Zone.....	F-1
Attachment G: Standard NPDES Stormwater Permit Provisions.....	G-1

APPENDIX II

**Provision C.16.5. to be added to
Order No. R2-2015-0049**

C.16.5. Cities of Antioch, Brentwood, and Oakley, Unincorporated Contra Costa County, and the Contra Costa County Flood Control and Water Conservation District Inclusion into NPDES Permit No. CAS612008

The cities of Antioch, Brentwood, and Oakley, Unincorporated Contra Costa County, and the Contra Costa County Flood Control and Water Conservation District (East County Permittees), located in the Central Valley Water Board's geographic jurisdiction, are included in the definition of "Permittees" as used throughout and shall comply with all requirements of Order No. R2-2015-0049, except as provided for in this Provision. This Provision identifies those Order provisions that do not apply to the East County Permittees, and allows the East County Permittees additional time to come into compliance with the specific provisions listed below. Additionally, it incorporates requirements for the Central Valley Board's TMDLs that apply to the East County Permittees.

C.16.5.a. Green Infrastructure Planning and Implementation

- i. Implementation Level** – Each East County Permittee shall comply with Provision C.3.j. immediately, except for the deadlines listed below.
- ii. Due Dates**

The cities of Antioch, Brentwood, and Oakley shall:

- (1) By November 30, 2019, have their Green Infrastructure framework or workplan for development of their Green Infrastructure Plan approved by their governing bodies, mayor, or city managers (as required by Order Provisions C.3.j.i.(1));
- (2) By December 31, 2019, submit documentation that their Green Infrastructure frameworks or workplans for development of their Green Infrastructure Plans were approved by their governing bodies, mayors, or city managers (as required by Order Provisions C.3.j.i.(1)) by November 30, 2019, and
- (3) By December 31, 2020, submit their completed Green Infrastructure Plan (as described in Order Provision C.3.j.i.(2)).
- (4) By December 31, 2020, submit documentation of their legal mechanisms to ensure implementation of its Green Infrastructure Plan.

C.16.5.b. Inspections for Construction Site Control at Hillside Projects

- i. Implementation Level** – Each East County Permittee shall comply with Provision C.6.e. immediately, except for the deadline for C.6.e.ii.(2)(b).
- ii. Due Dates**

- (1) Beginning July 1, 2020, each East County Permittee shall inspect all hillside projects (based on the Permittee's map of hillside development areas or criteria, or if the Permittee does not have a map of hillside development areas or criteria, those projects on sites with >15% slope)

disturbing greater than or equal to 5,000 square feet monthly, during the wet season.

- (2) In the 2020 Annual Report, each East County Permittee shall certify the criteria it uses to determine hillside developments. If the Permittee is using maps of hillside development areas or other written criteria, include a copy in the Annual Report.

C.16.5.c. Trash Load Reductions

i. Implementation Level – Each East County Permittee shall comply with Provision C.10. immediately, except for the following requirements and deadlines in Provisions C.10.a.i, C.10.a.ii, and C.10.f.v.b, which are modified as follows.

ii. Due Dates and Reporting

- (1) C.10.a.i.

By December 31, 2019, each East County Permittee shall reduce trash discharges to receiving waters by 70 percent, from baseline trash loads as depicted in the Permittee’s baseline trash generation rate maps submitted in its 2016 Annual Report, or 2019 Annual Report, if the Permittee submitted a corrected baseline trash generation rate map.

- (2) C.10.a.ii.

The East County Permittees shall have an opportunity to correct and/or revise, based on improved information, the trash levels and trash generation areas maps that were submitted to Central Valley Regional Water Board in the 2016 Annual Report. Should an East County Permittee correct and/or revise its trash generation map submitted in the 2016 Annual Report, the corrected or revised trash generation map(s) shall be submitted in the 2019 Annual Report.

- (3) C.10.a.ii.a.

The C.10.a.i. percent reductions shall be demonstrated by percent of 2016 or 2019, if a revised baseline map was submitted, of Very High, High, and Moderate trash generation areas reduced to lower trash generation categories or Low trash generation.

- (4) C.10.a.ii.b.

The East County Permittees shall ensure that lands that they do not own or operate, but that are plumbed directly to their storm drain systems in Very High, High, and Moderate trash generation areas are equipped with full trash capture systems or are managed with trash discharge control actions equivalent to or better than full trash capture systems. The efficacy of the latter shall be assessed with visual assessments in accordance with C.10.b.ii. If there is a full trash capture device downstream of these lands, no other trash control is required. The East County Permittees shall (i) map the location or otherwise record the location, and (ii) provide the

trash control status of all such lands greater than 10,000 ft² that are plumbed directly to their storm drain systems by December 31, 2020. This information shall be retained by the East County Permittees for inspection upon request.

(5) C.10.f.v.b.

If an East County Permittee cannot demonstrate attainment of the 2019 mandatory trash load reduction by the deadline, it shall submit a report of non-compliance in advance of the deadline or with the submittal that describes actions to comply with the mandatory reduction in a timely manner. The report shall include a plan and schedule for implementation of full trash capture systems installation sufficient to attain the required reduction. An East County Permittee may submit a plan and schedule for implementation of other trash management actions to attain the required reduction in an area where implementation of a full trash capture system is not feasible. In such cases, the report shall include identification of the area and documentation for the basis of the East County Permittee's determination that implementation of a full trash capture system is not feasible.

C.16.5.d. Mercury Controls

East County Permittees are exempted from Provision C.11, Mercury Controls.

C.16.5.e. Polychlorinated Biphenyls (PCBs) Controls

East County Permittees are exempted from Provision C.12, PCBs Controls.

C.16.5.f. Diazinon and Chlorpyrifos Controls

Task Description – The East County Permittees shall maintain wasteload allocations for diazinon and chlorpyrifos.

Implementation Level – The East County Permittees shall implement Provision C.9.

C.16.5.g. Methylmercury Monitoring

Task Description – The East County Permittees shall implement methylmercury monitoring. With the Executive Officer's approval, the East County Permittees may participate in the Delta Regional Monitoring Program (Delta RMP) or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this Provision. Participation in the Delta RMP shall consist of providing funds and/or in-kind services to the Delta RMP at least equivalent to discontinued monitoring efforts.

Implementation Level – The East County Permittees shall:

- (1) Conduct monitoring in Marsh Creek, downstream of Marsh Creek Reservoir, to analyze aqueous methylmercury in at least eight (8) samples each year using U.S. EPA or SWAMP-approved methods.

- (2) Direct monitoring to address the following management questions:
 - What is the annual average methylmercury load from the Marsh Creek watershed?
 - How much of the Marsh Creek methylmercury load results from discharges from the MS4?
 - What is the methylmercury load reduction from the MS4 by implementation of reasonable, foreseeable control measures to the maximum extent practicable?
 - Does eutrophication and low dissolved oxygen increase methylmercury in ponded areas of Marsh Creek during low flow periods (depending on the year, low flow periods can range between mid-March through mid-November), and if so:
 - Under what circumstances do those effects reach the Delta?
 - Are there reasonable and foreseeable management actions to ameliorate that condition?

iii. Reporting

- (1) Urban Creeks Monitoring Report (UCMR) – The East County Permittees shall report monitoring and assessment results relevant to the Delta Mercury Control Program (Delta Methylmercury TMDL) as a separate section within the UCMR required under Provision C.8.h.iii. A copy of each UCMR shall also be submitted to the Central Valley Water Board.
- (2) Pollutants of Concern Monitoring Report – The East County Permittees shall report monitoring and assessment activities relevant to the Delta Methylmercury TMDL from the past water year and planned for the next water year as a separate section within the Pollutants of Concern Monitoring Report required under Provision C.8.h.iv. A copy of each Pollutants of Concern Monitoring Report shall also be submitted to the Central Valley Water Board.
- (3) Integrated Monitoring Report – The East County Permittees shall report the monitoring and assessment results as a separate section within the Integrated Monitoring Report as required under Provision C.8.h.v. A copy of each Integrated Monitoring Report shall also be submitted to the Central Valley Water Board.
- (4) The East County Permittees shall report progress on the Delta Methylmercury TMDL and recommendations for the next permit re-issuance as a separate section within the Report of Waste Discharge (ROWD) required by Provision C.20. A copy of the ROWD shall also be submitted to the Central Valley Water Board.

C.16.5.h. Delta Mercury Control Program

The WLAs for methylmercury by Delta subarea are as follows:

- Central Delta subarea: 0.75 grams/year

- Marsh Creek subarea: 0.30 grams/year
- West Delta subarea: 3.2 grams/year

Methylmercury waste load allocations shall be met as soon as possible, but no later than the Final Compliance Date of December 31, 2030, unless the Central Valley Regional Water Board modifies the Delta Methylmercury TMDL implementation schedule and Final Compliance Date.

At a minimum, the East County Permittees shall implement the following BMPs to reduce inorganic mercury discharges and make substantial progress toward achieving the urban runoff methylmercury load allocation established for the Delta Methylmercury TMDL.

(1) **Mercury Collection and Recycling**

- Task Description** – This Provision requires ongoing implementation of mercury collection and recycling to minimize mercury in storm water.
- Implementation Level** – The East County Permittees shall continue implementing:
 - Collection and recycling of mercury containing devices and equipment at the consumer level (e.g., thermometers, thermostats, switches, bulbs); and
 - Collection, recycling and/or diversion of mercury-containing waste products (e.g., gauges, batteries, fluorescent and other lamps, switches, relays and sensors) from the waste stream from industrial and commercial entities (e.g., auto dismantlers), and municipal facilities.
- Reporting** – The East County Permittees shall report on these efforts in their Annual Report.

(2) **Enhanced Municipal Management Practices to Reduce Sediment Discharges**

- Task Description** – This Provision requires the ongoing implementation of BMPs to minimize sediment discharges from municipal operations and municipal maintenance activities.
- Implementation Level** – The East County Permittees shall continue to implement BMPs to minimize sediment discharges during municipal operations and municipal maintenance activities. Municipal operations and municipal maintenance activities include but are not limited to the following: storm drain drop inlet and pipeline cleaning, landscaping, road construction, road repair, and pump station cleaning.
- Reporting** – In each Annual Report, the East County Permittees shall list the municipal operations and municipal maintenance activities that BMPs are implemented to minimize sediment discharges.

(3) **Public Education and Risk Reduction**

- i. Task Description** – This Provision requires the East County Permittees to conduct ongoing education to the public on mercury pollution prevention and mercury risk reduction.
- ii. Implementation Level** – The East County Permittees shall continue to:
 - (a) Provide mercury pollution prevention messages to residents, commercial businesses, and industrial facilities with mercury-containing products or emissions. This may be implemented as part of Provision C.7; and
 - (b) Provide notices to communities on the health risk associated with eating mercury contaminated fish. These notices shall also include the Office of Environmental Health Hazard Assessment’s fish consumption advisories.
- iii. Reporting** – The East County Permittees shall:
 - (a) Discuss the mercury pollution prevention messages provided under Provision C.7. and
 - (b) Summarize tasks implemented to provide notices on the health risk associated with eating mercury contaminated fish.

APPENDIX III

**Revisions to Provisions C.1. and C.17. of
Order No. R2-2015-0049**

Other Changes to Order No. R2-2015-0049 as noted below in underlined type and ~~strikeout~~ format:

C.1. Compliance with Discharge Prohibitions and Receiving Waters Limitations

The Permittees shall comply with Discharge Prohibitions A.1 and A.2 and Receiving Water Limitations B.1 and B.2 through the timely implementation of control measures and other actions as specified in Provisions C.2 through ~~C.15~~ C.16.5. Compliance with Provisions C.9 through C.12, ~~and C.14,~~ and C.16.5 of this Order, which prescribe requirements and schedules for Permittees identified therein to manage their discharges that may cause or contribute to violations of water quality standards (WQS) for pesticides, trash, mercury, polychlorinated biphenyls (PCBs), ~~and bacteria,~~ diazinon and chlorpyrifos, and methylmercury shall constitute compliance during the term of this Order with Receiving Water Limitations B.1 and B.2 for the pollutants and the receiving waters identified in the provisions. Compliance with Provisions C.10 and C.16.5, which prescribes requirements and schedules for Permittees to manage their discharges of trash, shall also constitute compliance with Discharge Prohibitions A.1 and A.2 during the term of this Order for discharges of trash. If exceedance(s) of (WQS), except for exceedances of water quality standards for pesticides, trash, mercury, PCBs, ~~and bacteria,~~ diazinon and chlorpyrifos, and methylmercury that are managed pursuant to Provisions C.9 through C.12, ~~and C.14,~~ and C.16.5 persist in receiving waters notwithstanding the implementation of the required controls and actions, the Permittees shall comply with the following procedure:

C.17. Annual Reports

- C.17.a.** The Permittees shall submit Annual Reports electronically in all cases by September 30 of each year. Each Annual Report shall report on the previous fiscal year beginning July 1 and ending June 30. The annual reporting requirements are set forth in Provisions C.1 – C.16.5. A paper copy of each Annual Report shall be submitted by October 15 of each year. The East County Permittees shall also submit an electronic copy of each Annual Report to the Central Valley Water Board. The Permittees shall retain documentation as necessary to support their Annual Report. The Permittees shall make this supporting information available upon request within a timely manner, generally no more than ten business days unless otherwise agreed to by the Executive Officer.
- C.17.b.** The Permittees shall collaboratively develop a common annual reporting format for acceptance by the Executive Officer by April 1, 2016. The resulting Annual Report Form, once approved, shall be used by all Permittees. The Annual Report Form may be changed by April 1 of each year for the following Annual Report, to more accurately reflect the reporting requirements of Provisions C.1 – C.16.5, with the agreement of the Permittees and by the approval of the Executive Officer.

APPENDIX IV

Fact Sheet

This Fact Sheet describes the legal requirements and technical rationale that serve as the basis for this Amendment Order's requirements. This Fact Sheet constitutes a portion of the findings for the Order.

Purpose

The purpose of the Order is to amend Water Board Order No. R2-2015-0049, the San Francisco Bay Municipal Regional Stormwater Permit (Permit), to add the Contra Costa County cities of Antioch, Brentwood, and Oakley, and portions of Unincorporated Contra Costa County and Contra Costa County Flood Control and Water Conservation District that drain to the Central Valley Regional Water Board's watershed (collectively East County Permittees).

Relevant Statutes, Regulations, Plans, and Policies

The finding pertaining to unfunded mandates has been augmented as follows:

C.1 State Mandates Findings for Permit Amendment to add East Contra Costa Permittees

Section C of this Fact Sheet contains findings on state mandates for the issuance of this Municipal Regional Stormwater Permit (MRP), Order No. R2-2015-0049. The findings made in that section are applicable to this MRP Amendment to add several dischargers in eastern Contra Costa County to the permit (MRP Amendment). The following additional findings are made specific to this MRP Amendment:

The MRP Amendment does not constitute a New Program or Higher Level of Service

Article XIII B, Section 6(a) of the California Constitution provides that whenever "any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." The requirements of the MRP Amendment do not constitute a new program or a higher level of service.

The MRP Amendment adds the East County Permittees to the existing MRP for the San Francisco Bay Region. The East County Permittees were previously permitted under Central Valley Water Board Order No. R5-2010-0102, which closely matched the requirements of an earlier iteration of the MRP in effect at the time of its issuance. The East County Permittees requested to be added to the MRP, in lieu of enrolling under a new regional permit Order No. R5-2016-0040 adopted by the Central Valley Water Board, specifically so that their requirements could continue to align with the requirements of the other local governments in Contra Costa County under the MRP. Even if the requirements under the MRP are not identical to the requirements of R5-2010-0102, they do not constitute a new program of higher level of service.

First, having requested to be permitted under the MRP, the East County Permittees are precluded from advancing any argument that the permitting action they specifically requested constitutes a new program and therefore an unfunded mandate. The permittees are free to enroll under Order No. R5-2016-0040 instead. Second, and as discussed in Section C, the overarching requirement to impose controls to reduce

or prevent pollutants in MS4 discharges is dictated by the Clean Water Act (CWA)¹ and is not new to the MRP Amendment, nor does the MRP Amendment constitute an enhanced level of service of preventing pollutants compared to prior permits. Importantly, the inclusion of new and advanced measures as the MS4 programs evolve and mature over time is specifically anticipated under the CWA (55 FR 47990, 48052 (Nov. 16, 1990)), and to the extent requirements in the MRP Amendment are interpreted as more advanced measures as compared to the prior permit, they are refining existing measures and do not constitute a new program or higher level of service.

The Permit Amendment Falls under Several Exceptions to Mandates Rules

Even if some of the requirements imposed on the East County Permittees with the MRP Amendment could be considered a new program or higher level of service, the following exceptions to a finding of unfunded mandates preclude subvention here:

The permit amendment provisions are required by federal law:

One of the exceptions to the subvention requirements is if the mandate imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation (Gov. Code, §17556, subd. (c)). The MRP Amendment provisions, just like the MRP provisions, are mandated by federal law or regulation and do not exceed that mandate for the same reasons articulated in Section C. Here, the Board expressly finds that all requirements imposed on the East Contra Costa County Permittees are necessary to implement the federal CWA requirements for MS4 permitting.

With regard to TMDL requirements, the East County Permittees are subject to a different set of TMDLs than the existing permittees under the MRP and therefore must attain a separate set of WLAs. Federal law requires that permits must contain effluent limitations consistent with the assumptions of any applicable WLA (40 CFR 122.44(d)(1)(vii)(B)). The fact that the East Contra Costa County Permittees' requirements that are derived from TMDLs differ from those of the existing permittees does not mean that those requirements are based in authority other than federal law.²

¹ In this sense, and as a threshold matter, MS4 permitting is not a "program" as that term is used in Article XIII B, Section (6). The California Supreme Court has defined a "program" for purposes of article XIII B, section 6, as: (1) programs that carry out the governmental function of providing services to the public, or (2) laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state (*San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874 (reaffirming the test set forth in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56); *Lucia Mar Unified School District v. Honig* (1988) 44 Cal.3d 830, 835). The CWA forbids everyone—individuals, businesses, state governments, tribal governments, local governments, etc.—from discharging pollutants from point sources to waters of the United States without an NPDES permit (33 USC §§ 1311(a), 402, 502(5); see also 40 CFR §§ 122.21, 122.22, 123.25); with regard to pollutants in storm water, the CWA requires permitting of private and governmental (federal, state, and local) sources of storm water alike (33 USC §1342(p)).

² Regardless, MRP Amendment requirements based in TMDLs cannot constitute a new program or higher level of service. TMDLs are developed for the purpose of specifying requirements for the achievement of water quality

Permittees have authority to fund the costs through fees:

Permittees' fee authority is detailed in Section C. As stated, 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)). In recent years, the Legislature enacted two important pieces of legislation confirming fee authority without the need for voter approval. In Assembly Bill 2043 (2014), effective January 1, 2015, the Legislature amended the definition of "water" for purposes of articles XIII C and XIII D to mean "water from any source" (Gov. Code, § 53750, subd. (n), amended by Assembly Bill 2043 (Stats. 2014, ch. 78, § 2). In doing so, the Legislature stated that its act "is declaratory of existing law" (Stats. 2014, ch. 78, § 1(c)). With Senate Bill 231 (2017), effective January 1, 2018, the Legislature "reaffirm[ed] and reiterate[d]" that the definition of "sewer" for purposes of article XIII D includes:

systems, all real estate, fixtures, and personal property owned, controlled, operated, or managed in connection with or to facilitate sewage collection, treatment, or disposition for sanitary *or drainage* purposes, including lateral and connecting sewers, interceptors, trunk and outfall lines, sanitary sewage treatment or disposal plants or works, drains, *conduits*, outlets for *surface or storm waters*, and any and all other works, property, or structures necessary or convenient for the collection or disposal of sewage, industrial waste, *or surface or storm waters*.

(Gov. Code, § 53750, subd. (f), and § 53751, subd. (i), added by Senate Bill 231, Stats. 2017, ch. 536, § 2 (emphases added))

In addition, Health and Safety Code section 5471, subdivision (a), gives dischargers fee authority for "services and facilities furnished...in connection with its water, sanitation, *storm drainage*, or sewerage system" (Health & Safety Code, § 5471, subd. (a) (emphasis added)).

Specific Provision C.16.5 Requirements

Provision C.16.5.a. (Green Infrastructure Planning and Implementation), Provision C.16.5.b. (Inspection for Construction Site Control at Hillside Projects), and Provision C.16.5.c. (Trash Load Reductions) extend the deadlines for the specific Permit tasks that do not exist or are on a less aggressive timeline in the East County Permittees' Previous Permit.

Provision C.16.5.d. (Mercury Controls) exempts the East County Permittees from Provision C.11 – Mercury Controls because the East County Permittees are not named as point sources of mercury in the San Francisco Bay Mercury TMDL. Therefore, they do not have San Francisco

standards in impaired water bodies (33 USC 1313(d); 40 CFR §130.7). Several generations of the MS4 permits issued in California have prohibited discharges that cause or contribute to exceedances of water quality standards in the receiving water. TMDL provisions simply add a process for meeting this requirement based on a compliance schedule.

Bay Mercury TMDL wasteload allocations (WLAs) for mercury (See Provision 16.5.h concerning compliance with the Delta Methylmercury TMDL).

Provision C.16.5.e. (Polychlorinated Biphenyls (PCBs) Controls) exempts the East County Permittees from Provision C.12 – PCBs Controls because the East County Permittees are not named as point sources of PCBs in the San Francisco Bay PCBs TMDL. Therefore, they do not have San Francisco Bay Mercury TMDL WLAs for PCBs.

Provision C.16.5.f. (Diazinon and Chlorpyrifos Controls) implements the Sacramento-San Joaquin Delta Diazinon and Chlorpyrifos TMDL. The Central Valley Regional Water Board adopted a Basin Plan amendment including a TMDL for diazinon and chlorpyrifos in the Sacramento-San Joaquin Delta Waterways (Delta Waterways)³ on June 23, 2006. The State Water Board and U.S. EPA both approved this Basin Plan Amendment. This TMDL includes waste load allocations (WLAs) for diazinon and chlorpyrifos applicable to the East County Permittees.

This TMDL states that levels of diazinon and chlorpyrifos shall not exceed the sum (S) of one (1) as defined below:

$$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$$

where:

- C_D = diazinon concentration in ug/L of point source discharge
- C_C = chlorpyrifos concentration in ug/L of point source discharge
- WQO_D = acute or chronic diazinon water quality criterion (0.160 and 0.100 ug/L, respectively)
- WQO_C = acute or chronic chlorpyrifos water quality criterion (0.025 and 0.015 ug/L, respectively)

For the purpose of calculating the sum (S) above, non-detectable concentrations are considered to be zero.

The East County Permittees' previous Permit included requirements for the Diazinon and Chlorpyrifos TMDL. The Final Compliance Deadline for this TMDL was December 1, 2011.

The East County Permittees submitted a letter dated September 13, 2018, demonstrating their discharge has not exceeded the TMDL WLAs or water quality objective concentrations for diazinon and chlorpyrifos since 2008. The letter summarizes the results of diazinon and chlorpyrifos monitoring from 2012-2014 under Contra Costa Clean Water Program's Pollutants of Concern Load Monitoring at Lower Marsh Creek. This sampling location is directly

³ The Delta Waterways include only those reaches that are located within the "Legal" Delta, as defined in Section 12220 of the California Water Code (CWC). The Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin Appendix 42 lists the Delta Waterways to which the site-specific diazinon and chlorpyrifos water quality objectives and implementation and monitoring provisions apply.

downstream from one of the largest continuous urbanized areas in East County and samples characterized critical storm runoff events.

In addition, the letter includes diazinon and chlorpyrifos summary monitoring data from other County locations, in areas with both urban and agricultural lands from 2001-2017 by three programs: the State of California's Surface Water Ambient Monitoring Program (SWAMP), the Department of Pesticide Regulation (DPR) Statewide Pesticide Monitoring Program, and the San Francisco Estuary Institute (SFEI) Small Tributaries Loading Strategy. The SWAMP monitoring data includes 16 chlorpyrifos samples with no detections or exceedances, and 16 diazinon samples with 9 detections and 9 exceedances from 2001–2005. The DPR monitoring data includes 13 chlorpyrifos samples with 1 detection and 1 exceedance, and 13 diazinon samples with 1 detection and 1 exceedance from 2008-2009 and 2017. The chlorpyrifos and diazinon exceedances occurred in 2009 and could have been from agricultural sources. The SFEI monitoring data includes 5 chlorpyrifos samples with no detections or exceedances, and 5 diazinon samples with no detections or exceedances from 2013-2014. The monitoring data from SWAMP, DPR, and SFEI show that water quality objectives for diazinon and chlorpyrifos have not been exceeded since 2009, providing additional data to reflect the trend of reduced diazinon and chlorpyrifos concentrations in urban runoff.

The decline in concentrations of diazinon and chlorpyrifos in East County is consistent with observations of declines in urban runoff concentrations in the Central Valley Watershed following cancellation of urban uses of these chemicals. U.S. EPA cancelled the sale of nearly all non-agricultural diazinon and chlorpyrifos products by 2004. However, residents could still be storing diazinon and chlorpyrifos products, and old supplies remain legal to use. Because use of these products is still allowed and out of the direct control of the East County Permittees, there still is potential that such use could make consistent attainment of numeric effluent limits infeasible. The existing monitoring for toxicity and pesticides in Provision C.8. will be sufficient to demonstrate continued compliance with the diazinon and chlorpyrifos TMDL.

Therefore, the East County Permittees are required to implement Provision C.16.5.f. to maintain WLAs for diazinon and chlorpyrifos, and no additional actions are needed for the East County Permittees to comply with this TMDL.

Provision C.16.5.g. (Methylmercury Monitoring) requires methylmercury monitoring to assess compliance with the TMDL and the WLAs. Federal CWA section 303(d) TMDL requirements, as implemented under the CWC, require a monitoring plan designed to measure the effectiveness of the TMDL point and nonpoint source control measures and the progress the waterbody is making toward attaining water quality objectives. Such a plan necessarily includes collection of water quality data. Provision C.16.5.g. is intended to assess inputs of methylmercury to the Delta from Marsh Creek and urban runoff; provide information to support implementation of pollutant control strategies; and assess progress toward achieving WLAs for the TMDL; and help resolve uncertainties in loading estimates and impairments associated with methylmercury.

In particular, methylmercury monitoring addresses four management questions:

1. Watershed Loads – What is the annual average methylmercury load from the Marsh Creek watershed?
2. Urban Discharge Loads – How much of the Marsh Creek methylmercury load results from discharges from the MS4 system?
3. Management Action Effectiveness – What is the methylmercury load reduction from the MS4 system by implementation of reasonable, foreseeable control measures to the maximum extent practicable?
4. Does eutrophication and low dissolved oxygen increase methylmercury in ponded areas of Marsh Creek during low flow periods (depending on the year, low flow periods can range between mid-March through mid-November), and if so:
 - o Under what circumstances do those effects reach the Delta?
 - o Are there reasonable and foreseeable management actions to ameliorate that condition?

CWA section 402, subdivision (a)(2); 40 CFR sections 122.44, subdivision (i)(1), and 122.48, subdivision (b); and CWC section 13383 provide authority for the Water Board to require monitoring and technical water quality reports. Provision C.16.5.g. requires Permittees to submit electronic and comprehensive reports on their water quality monitoring activities to (1) determine compliance with monitoring requirements and (2) provide information useful in evaluating compliance with all Permit requirements.

To inform the permit reissuance, the East County Permittee's Report of Waste Discharge will include the status of its implementation of the Delta Mercury Control Program.

Provision C.16.5.h. (Delta Mercury Control Program) implements the Delta Methylmercury TMDL. On April 22, 2010, the Central Valley Regional Water Board adopted a Basin Plan amendment to the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* for the Control of Methylmercury and Mercury in the Sacramento-San Joaquin Delta Estuary (Resolution No. R5-2010-0043) to address the mercury impairments. The Delta Methylmercury TMDL was approved by the State Water Resources Control Board and the California Office of Administrative Law. Final approval by the U.S. EPA was received on October 20, 2011.

The Delta is impaired because of elevated levels of methylmercury in fish. The Delta is on the CWA 303(d) list for mercury and the State Water Resources Control Board has designated the Delta as a toxic hot spot under the Bay Protection and Toxic Hot Spot Cleanup Program. Mercury problems are evident throughout the Central Valley Watershed. The main concern with inorganic mercury is that it can develop into methylmercury, a powerful neurotoxin that bioaccumulates in the aquatic food chain to harmful levels. Health advisories have been issued which recommend limiting consumption of fish from the Bay/Delta, tributaries to the Delta, and many lakes and reservoirs in the Central Valley. Concentrations of mercury in fish in other water bodies approach or exceed National Academy of Science (NAS), U.S. EPA, and/or U.S. Food and Drug Administration (FDA) guidelines for wildlife and human protection. Mercury levels also exceed water quality objectives for the Delta and elsewhere. In addition to these concerns, fish-eating birds taken from some bodies of water in the Basins have levels of mercury that can be expected to cause toxic effects. Bird-kills from mercury also have been documented in Lake Berryessa.

Components of the Delta Methylmercury TMDL relevant to implementation through the municipal storm water permits are as follows:

1. The methylmercury waste load allocations for the East County Permittees, by Delta subarea, are:
Central Delta 0.75 grams/year;
Marsh Creek 0.30 grams/year; and
West Delta 3.2 grams/year

Compliance with the methylmercury waste load allocations shall be met as soon as possible, but no later than 2030, unless the Central Valley Regional Water Board modifies the TMDL implementation schedule and Final Compliance Date.
2. The NPDES Permits for urban runoff management agencies shall require pollution prevention measures and the implementation of BMPs to minimize total mercury discharges. In addition to controlling mercury loads, BMPs or control measures shall include actions to reduce mercury-related risks to human health and wildlife. Requirements in the Permit issued or reissued and applicable for the term of the Permit shall be based on an updated assessment of pollution prevention measures and BMPs to minimize total (inorganic) mercury discharges to the MEP.
3. Annual methylmercury loads in urban runoff in MS4 service area within the Delta and Yolo Bypass may be calculated by the following method or by an alternate method approved the Central Valley Regional Water Board Executive Officer. The annual methylmercury load in urban runoff for a given MS4 service area during a given year may be calculated by the sum of wet weather and dry weather methylmercury loads. To estimate wet weather methylmercury loads discharged by MS4 urban areas, the average of wet weather methylmercury concentrations observed at the MS4's compliance locations maybe multiplied by the wet weather runoff volume estimated for all urban areas within the MS4 service area within the Delta and Yolo Bypass. To estimate dry weather methylmercury loads, the average dry weather methylmercury concentrations observed at the MS4's compliance locations may be multiplied by the estimated dry weather urban runoff volume in the MS4 service area within the Delta and Yolo Bypass. This method is consistent with that used to develop load estimates in the Delta Methylmercury TMDL.
4. Urban runoff management agencies have a responsibility to oversee various discharges within the agencies' geographic boundaries. However, if it is determined that a source is substantially contributing to mercury or methylmercury loads to the Delta or is outside the jurisdiction authority of any agency, the Central Valley Regional Water Board may consider issuing additional allocations and regulatory requirements for the source in question.

In their Previous Permit, the East County Permittees were required to implement Phase 1 of the Delta Methylmercury TMDL. Phase 1 required them to conduct methylmercury control studies to monitor and evaluate the effectiveness of existing BMPs to control methylmercury; and to develop and evaluate additional BMPs effectiveness to control methylmercury. A report

documenting the results of their control studies was submitted to the Central Valley Water Board October 2018. This marked the end of Phase 1.

The Central Valley Regional Water Board will use the control studies to conduct a Phase 1 Delta Methylmercury TMDL Review that considers:

- Modification of methylmercury goals, objectives, allocations and/or the Final Compliance Date;
- Implementation of management practices and schedules for methylmercury controls; and
- Adoption of a mercury offset program for dischargers who cannot meet their load and waste load allocations after implementing all reasonable load reduction strategies.

The findings of the control studies and other information will also be used to re-evaluate the fish tissue objectives, the linkage analysis between objectives and sources, and the attainability of the allocations. The linkage analysis, fish tissue objectives, allocations, and time schedules may also be adjusted. In addition, the Central Valley Regional Water Board will use the Phase 1 Control Studies' results and other information to consider amendments to the Delta Methylmercury TMDL during the Phase 1 Delta Methylmercury TMDL Review.

Phase 2 of the Delta Methylmercury TMDL begins after the Phase 1 Delta Methylmercury TMDL Review. If Phase 2 begins during this Permit term, this Permit may be amended to include additional requirements.

Provision C.16.5.h contains minimum BMPs to reduce inorganic mercury loads and make substantial progress toward achieving the urban runoff methylmercury load allocations established for the Delta Methylmercury TMDL. Preventing sediment bound inorganic mercury from entering wet environments is critical in preventing it from methylating. The BMPs may, or may not, on their own be adequate for achieving compliance with the WLAs. If the East County are not making progress to achieve the WLAs by the compliance date, they will implement additional BMP (structural or non-structural).

Mercury Collection and Recycling

Mercury is found in a wide variety of consumer products (e.g., fluorescent bulbs, thermometers) that are subject to recycling requirements. These recycling efforts are already happening throughout the Region, and this Provision requires continued implementation of collection and recycling of mercury containing devices and waste products and alternative procedures to improve proper handling, disposal, and recycling of mercury-containing products.

Enhanced Municipal Management Practices to Reduce Sediment Discharges

Unless appropriate BMPs are implemented, municipal operations and maintenance activities are potential sources of sediment discharges. Sediment accumulated on sidewalks, corporation yards, roads, parking lots, and landscaping, is a major source of point source pollutants found in urban runoff. The enhanced municipal management practices to reduce sediment discharges are intended to minimize total (inorganic) mercury discharges required by the Delta Methylmercury

TMDL. Thus, Provision C.16.5.h requires the East County permittees to implement minimum BMPs for municipal facilities and activities as part of their ongoing pollution prevention efforts. Such prevention measures include, but are not limited to, storm drain drop inlet and pipeline cleaning, landscaping, road construction, road repair, and pump station cleaning. The work of municipal maintenance personnel vital to minimize stormwater pollution because personnel work directly on municipal storm drains and other municipal facilities. Through work such as inspecting, and cleaning storm drain drop inlets and pipes and conducting municipal construction and maintenance activities upstream of the storm drain, municipal maintenance personnel are directly responsible for preventing and removing pollutants from the storm drain.

Public Education and Risk Reduction

An informed and knowledgeable community is critical to the success of a stormwater program since it helps ensure greater support for the program as the public gains a greater understanding of stormwater pollution issues and its importance and influences positive stormwater pollution prevention behavior.

The East County Permittees have been implementing public outreach campaigns to educate their community on mercury pollution prevention. This Permit requires the East County Permittees to continue implementing a public education, outreach and participation program that is designed to reach residential, commercial, and industrial sources of mercury-containing products or emissions. The East County Permittees can utilize various electronic and print media, and paid and free media to best reach the different various target audiences. Additionally, the East County Permittees need to continue communicating with a broad spectrum of citizens with stormwater pollution prevention information through long-established outreach mechanisms such as staffing tables or booths at fairs, street fairs, and other community events. An informed community ensures greater compliance with the stormwater program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of local waters.

Methylmercury is a toxicant that is harmful to the brain and nervous system of infants, children, and the developing fetus. Nearly all fish caught in the Delta contain traces of methylmercury, the methylated form of mercury. However, larger fish that have lived longer have the highest levels of methylmercury because they have had more time to accumulate it. These large fish pose the greatest risk to children and pregnant women who eat them regularly. This Provision requires continual actions to manage human health risk due to mercury in Delta fish. This includes effort to communicate the health risks of eating Delta fish to high risk-communities.