

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

1515 Clay Street, Suite 1400, Oakland California 94612-1482
waterboards.ca.gov/sanfranciscobay

ORDER R2-2021-0028

**AMENDMENT OF MONITORING AND REPORTING REQUIREMENTS
FOR MUNICIPAL WASTEWATER DISCHARGERS AND
AMENDMENT OF ALTERNATE MONITORING AND REPORTING PROGRAM
FOR MUNICIPAL WASTEWATER DISCHARGERS
FOR THE PURPOSE OF SUPPORTING THE
SAN FRANCISCO BAY REGIONAL MONITORING PROGRAM**

WHEREAS the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), finds the following:

1. Through the orders listed in Table 1, the Regional Water Board issued waste discharge requirements that serve as National Pollutant Discharge Elimination System (NPDES) permits for the dischargers listed in Table 1 (Dischargers). These permits authorize the Dischargers to discharge treated wastewater from their respective facilities to waters of the United States subject to specific conditions.
2. Through Order R2-2017-0041, the Regional Water Board issued waste discharge requirements that serve as an NPDES permit for the Dischargers' mercury and polychlorinated biphenyls (PCBs) discharges.
3. Through Order R2-2016-0008, the Regional Water Board amended the permits listed in Table 1 and Order R2-2017-0041 to allow individual Dischargers to choose to reduce monitoring frequencies for certain parameters on the condition that they apply the cost savings to fund studies by the San Francisco Bay Regional Monitoring Program for Toxic Pollutants and Trace Substances (RMP). The parameters included polychlorinated biphenyls (PCBs), dioxins and furans, volatile organic compounds (VOCs), base neutral and acid extractable organic compounds (BNAs), and chlorinated pesticides. Order R2-2016-0008 also allowed individual Dischargers to choose to forego chronic toxicity screening studies on the condition that they apply the cost savings to fund RMP studies. The Regional Water Board concluded that it would be a better use of resources to direct the cost savings associated with these monitoring reductions toward additional RMP studies for constituents of emerging concern (CECs).
4. This Order amends the permits listed in Table 1 as described below, except those for the City of Calistoga, Napa Sanitation District, and City and County of San Francisco (Southeast) because those permits have expired and cannot be amended. This Order also amends Order R2-2016-0008 to remove the dischargers listed in

Table 1, except for the City of Calistoga, Napa Sanitation District, and City and County of San Francisco (Southeast).

- a. This Order removes the requirement for chronic toxicity species sensitivity screenings with each permit reissuance (i.e., it maintains the changes established through Order R2-2016-0008) until U.S. EPA approves new toxicity requirements, such as those in the State Water Board's *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California and Toxicity Provisions* (Toxicity Provisions).
 - b. This Order reduces effluent monitoring frequencies for dioxins and furans, VOCs, BNAs, PCBs, and chlorinated pesticides (i.e., it maintains the reduced monitoring frequencies established through Order R2-2016-0008).
 - c. This Order reduces influent monitoring frequencies for mercury, VOCs, and BNAs for dischargers with pretreatment programs listed in Table 1 (this change is new).
 - d. This Order reduces biosolids monitoring frequencies for VOCs and BNAs for dischargers with pretreatment programs listed in Table 1 (this change is new).
 - e. This Order requires supplemental funding to support the RMP to study CECs.
5. This Order amends Order R2-2017-0041 to reduce mercury effluent monitoring frequencies for all Dischargers listed in Table 1 (this change is new). These changes apply to the City of Calistoga, Napa Sanitation District, and City and County of San Francisco (Southeast) because Order R2 2017-0041 has not expired and can be amended.
 6. The Fact Sheet (Attachment F) attached to this Order contains background information and the rationales for this Order's requirements. It is hereby incorporated into this Order and therefore constitutes part of the findings for this Order. As explained therein, the Regional Water Board developed this Order based in part on *Proposed Evolution of the 2016 Alternate Monitoring & Reporting Program to Add Support to the Regional Monitoring Program* (May 28, 2021), prepared by the Bay Area Clean Water Agencies on behalf of the Dischargers.
 7. This Order is exempt from the provisions of the California Environmental Quality Act pursuant to California Water Code section 13389.
 8. The Regional Water Board notified the Dischargers and interested agencies and persons of its intent to consider adoption of this Order, and provided an opportunity to submit written comments.
 9. In a public meeting, the Regional Water Board heard and considered all comments pertaining to this Order.

Table 1. Discharger Information

Discharger	NPDES Permit	Primary Order	Primary Order Expiration Date	Pretreatment Program	Retain Order R2-2016-0008
American Canyon, City of	CA0038768	R2-2017-0008	5/31/2022	X	
Benicia, City of	CA0038091	R2-2019-0034	1/31/2025		
Burlingame, City of, and North Bayside System Unit	CA0037788	R2-2018-0024	7/31/2023	X	
Calistoga, City of	CA0037966	R2-2016-0018	4/30/2021		X
Central Contra Costa Sanitary District	CA0037648	R2-2017-0009	5/31/2022	X	
Central Marin Sanitation Agency	CA0038628	R2-2018-0003	2/28/2023	X	
Crockett Community Services District, Port Costa Sanitary Dept.	CA0037885	R2-2018-0053	1/31/2024		
Delta Diablo	CA0038547	R2-2019-0035	1/31/2025	X	
East Bay Dischargers Authority	CA0037869	R2-2017-0016	6/30/2022		
Oro Loma and Castro Valley Sanitary Districts				X	
Union Sanitary District				X	
Hayward, City of				X	
San Leandro, City of				X	
Dublin San Ramon Services District	CA0037613	R2-2017-0017	6/30/2022	X	
Livermore, City of	CA0038008	R2-2017-0018	6/30/2022	X	
East Bay Municipal Utility District	CA0037702	R2-2020-0024	10/31/2025	X	
Fairfield-Suisun Sewer District	CA0038024	R2-2020-0012	4/30/2025	X	
Las Gallinas Valley Sanitary District	CA0037851	R2-2020-0022	8/31/2025		
Marin County (Paradise Cove), Sanitary District No. 5 of	CA0037427	R2-2021-0017	11/30/2026		
Marin County (Tiburon), Sanitary District No. 5 of	CA0037753	R2-2018-0038	9/30/2023		
Millbrae, City of, and North Bayside System Unit	CA0037532	R2-2019-0009	4/30/2024	X	
Mt. View Sanitary District	CA0037770	R2-2021-0026	1/31/2027		
Napa Sanitation District	CA0037575	R2-2016-0035	8/31/2021	X	X
Novato Sanitary District	CA0037958	R2-2020-0019	8/31/2025	X	
Palo Alto, City of	CA0037834	R2-2019-0015	5/31/2024	X	
Petaluma, City of	CA0037810	R2-2021-0008	6/30/2026	X	
Pinole, City of	CA0037796	R2-2018-0004	3/31/2023		
Rodeo Sanitary District	CA0037826	R2-2017-0034	10/31/2022		
St. Helena, City of	CA0038016	R2-2021-0004	5/30/2026		
San Francisco, City and County of (San Francisco International Airport), and North Bayside System Unit	CA0038318	R2-2018-0045	11/30/2023		
San Francisco, City and County of (Southeast Plant)	CA0037664	R2-2013-0029	9/30/2018	X	X
San Jose and Santa Clara, Cities of	CA0037842	R2-2020-0001	3/31/2025	X	
San Mateo, City of	CA0037541	R2-2018-0016	6/30/2023	X	
Sausalito-Marin City Sanitary District	CA0038067	R2-2018-0025	7/31/2023		
Sewerage Agency of Southern Marin	CA0037711	R2-2018-0039	9/30/2023		
Silicon Valley Clean Water	CA0038369	R2-2018-0005	3/31/2023	X	
Sonoma Valley County Sanitation District	CA0037800	R2-2019-0019	8/31/2024		
South San Francisco and San Bruno, Cities of, and North Bayside System Unit	CA0038130	R2-2019-0021	8/31/2024	X	

Discharger	NPDES Permit	Primary Order	Primary Order Expiration Date	Pretreatment Program	Retain Order R2-2016-0008
Sunnyvale, City of	CA0037621	R2-2020-0002	3/31/2025	X	
Treasure Island Development Authority	CA0110116	R2-2020-0020	7/31/2025		
Vallejo Flood and Wastewater District	CA0037699	R2-2017-0035	10/31/2022	X	
West County Agency; West County Wastewater District; City of Richmond; and Richmond Municipal Sewer District No. 1	CA0038539	R2-2019-0003	3/31/2024	X	
Yountville, Town of	CA0038121	R2-2020-0026	11/30/2025		

THEREFORE, IT IS HEREBY ORDERED that the permits listed in Table 1, except those for the City of Calistoga, Napa Sanitation District, and City and County of San Francisco (Southeast), are amended to include revised monitoring and reporting requirements as set forth below. Order R2-2016-0008 is amended to remove the dischargers listed in Table 1 of this Order, except for the City of Calistoga, Napa Sanitation District, and City and County of San Francisco (Southeast). Order R2-2017-0041 is amended to include revised monitoring requirements as set forth below. The Dischargers shall comply with their respective individual orders and Order R2-2017-0041 as amended by this Order. Dischargers for whom Order R2-2016-0008 has been retained shall continue to comply with that order.

1. REVISED MONITORING AND REPORTING PROGRAM REQUIREMENTS

- 1.1 Chronic Toxicity Screening.** The requirement for chronic toxicity sensitivity species screening with each permit reissuance shall be removed from the orders listed in Table 1, except for those where Order R2-2016-0008 is retained.
- 1.2. Dioxins and Furans (Dioxin-TEQ).** The effluent monitoring frequency for dioxins and furans for the dischargers listed in Table 1, except for those where Order R2-2016-0008 is retained, shall be once per permit term.
- 1.3. Priority Pollutants.** The effluent monitoring frequency for VOCs, BNAs, and chlorinated pesticides for the dischargers listed in Table 1, except for those where Order R2-2016-0008 is retained, shall be once per permit term unless a discharger's individual permit includes an effluent limit. For dischargers with an effluent limit, the effluent monitoring frequency shall be that established in its individual permit.
- 1.4. Mercury and PCBs.** The effluent monitoring frequencies for mercury and PCBs in Order R2-2017-0041, Attachment E, section III, shall be revised for all Dischargers as shown below:

Table 2. Revised Effluent Monitoring for Mercury and PCBs

Parameter	Units	Sampling Type	Minimum Sampling Frequency
Major Dischargers*			
Mercury, Total	µg/L	C-24 or Grab	1/Quarter
PCBs, Total (as Aroclors)	µg/L	Grab	Once per permit term
PCBs (as Congeners)	µg/L	Grab	Unchanged Refer to Order R2-2017-0041
Minor Dischargers*			
Mercury, Total	µg/L	C-24 or Grab	2/Year
PCBs, Total (as Aroclors)	µg/L	Grab	Once per permit term
PCBs (as Congeners)	µg/L	Grab	Unchanged Refer to Order R2-2017-0041

*Order R2-2017-0041 Table 1A identifies major and minor dischargers.

These mercury monitoring frequencies shall also replace the effluent monitoring frequencies specified in the individual permits listed in Table 1, except for those where Order R2-2016-0008 is retained.

- 1.5 Pretreatment and Biosolids.** The pretreatment and biosolids monitoring frequencies for the dischargers with pretreatment programs listed in Table 1, except for those where Order R2-2016-0008 is retained, shall be as follows (the individual permits specify the sample types):

Table 3. Revised Pretreatment and Biosolids Monitoring

Constituents	Influent Sampling Frequency INF-001 ^{[1] [2]}	Effluent Sampling Frequency EFF-001	Biosolids Sampling Frequency BIO-001 ^{[1] [2]}
VOCs	Once per permit term (for pretreatment programs with ≤5 SIU)	<i>Once per permit term</i>	Once per permit term (for pretreatment programs with ≤5 SIU)
	1/Year (for pretreatment programs 5< SIU ≤50)		1/Year (for pretreatment programs 5< SIU ≤50)
	2/Year (for pretreatment programs with 50< SIU)		2/Year (for pretreatment programs with 50< SIU)
BNAs	Once per permit term (for pretreatment programs with ≤5 SIU)	<i>Once per permit term</i>	Once per permit term (for pretreatment programs with ≤5 SIU)
	1/Year (for pretreatment programs 5< SIU ≤50)		1/Year (for pretreatment programs 5< SIU ≤50)
	2/Year (for pretreatment programs with 50< SIU)		2/Year (for pretreatment programs with 50< SIU)
Metals and Other Elements	<i>Unchanged (refer to individual permits)</i>		
Hexavalent Chromium	<i>Unchanged (refer to individual permits)</i>		

Constituents	Influent Sampling Frequency INF-001 ^[1] ^[2]	Effluent Sampling Frequency EFF-001	Biosolids Sampling Frequency BIO-001 ^[1] ^[2]
Copper	<i>Unchanged (refer to individual permits)</i>		
Cyanide, Total			
Mercury	1/Quarter	<i>Unchanged (refer to individual permits) except for effluent mercury monitoring as described in Provision 1.4</i>	
Nickel	<i>Unchanged (refer to individual permits)</i>		
Total Dissolved Solids			

Footnotes:

- ^[1] SIU: Significant Industrial Users. The sampling frequency for a calendar year shall depend on the number of SIUs a discharger identified in the previous calendar year and summarized in its Annual Pretreatment Report due February 28 each year.
- ^[2] Sampling frequencies are based on Attachment H, Appendix H-4, in individual permits for dischargers with pretreatment programs.

1.6 San Francisco Bay Regional Monitoring Program. The dischargers listed in Table 1, except for those where Order R2-2016-0008 is retained, shall provide supplemental funding to the RMP to support additional studies for CECs. The dischargers shall, either individually or in collaboration with other dischargers, submit or cause to submit a report each year that indicates the status of each dischargers’ RMP payment. The report shall be due on the same date as the letters certifying the dischargers’ annual payment in support of RMP receiving water monitoring (currently February 1 each year).

2. EFFECTIVE DATE. This Order Shall become effective January 1, 2022.

I hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on December 15, 2021.

Michael Montgomery, Executive Officer

ATTACHMENT F – FACT SHEET

This Fact Sheet describes the legal requirements and technical rationales that serve as the basis for the requirements of this Order. As described in Finding 6 of the Order, the Regional Water Board incorporates this Fact Sheet as findings supporting the issuance of the Order.

1. PERMIT INFORMATION

The following table summarizes administrative information related to the dischargers affected by this Order:

Table F-1. Facility Information

Discharger	Facility Contact	Mailing Address	Effluent Description	Facility Design Flow (MGD)
American Canyon, City of	Jay Atkinson, Plant Operations Manager, (707) 647-4526	151 Mezzetta Court American Canyon, CA 94503	Advanced Secondary	2.5
Benicia, City of	Jeff Gregory, Wastewater Treatment Plant Supervisor, (707) 746-4336	614 East Fifth Street Benicia, CA 94510	Secondary	4.5
Burlingame, City of, and North Bayside System Unit	Robert Spankowski, Operations Manager, (650) 333-6037	501 Primrose Burlingame, CA 04010	Secondary	5.5
Calistoga, City of	Derek Rayner, Public Works Director, (707) 942-2828	414 Washington Street Calistoga, CA 94515	Advanced Secondary	0.84
Central Marin Sanitation Agency	Chris Finton, Treatment Plant Manager, (415) 459-1455 ext. 101	1301 Andersen Drive San Rafael, CA 94901	Secondary	10
Central Contra Costa Sanitary District	Lori Schectel, Environmental Compliance Manager (925) 229-7143	5019 Imhoff Place Martinez, CA 945553	Secondary	53.8
Crockett Community Services District, Port Costa Sanitary Dept.	James Barnhill, Sanitary Department Manager, (510) 787-2992	P.O. Box 578 Crockett, CA 94525	Secondary	0.033
Delta Diablo	Amanda Roa, Environmental Program Manager, (925) 756-1940	2500 Pittsburg-Antioch Highway Antioch, CA 94509	Secondary	19.5
East Bay Dischargers Authority (City of Hayward, City of San Leandro, Oro Loma Sanitary District, Castro Valley Sanitary District, Union Sanitary District, Dublin San Ramon Services District, City of Livermore, and Livermore Amador Valley Water Management Agency)	Jacqueline Zipkin, General Manager (510) 278-5910	2651 Grant Avenue San Lorenzo, CA 94580	Secondary	107.8

Discharger	Facility Contact	Mailing Address	Effluent Description	Facility Design Flow (MGD)
East Bay Municipal Utility District	Eileen White, Director of Wastewater (510) 287-1149	P.O. Box 24055 Oakland, CA 94623	Secondary	120
Fairfield-Suisun Sewer District	Meg Herston, Environmental Compliance Engineer, (707) 428-9109	1010 Chadbourne Road Fairfield, CA 94535	Advanced Secondary	23.7
Las Gallinas Valley Sanitary District	Mel Liebmann, Plant Manager, (415) 472-1734	300 Smith Ranch Road San Rafael, CA 94903	Secondary	2.92
Marin County (Paradise Cove), Sanitary District No. 5 of	Tony Rubio, District Manager, (415) 435-1501 ext. 106	P.O. Box 227 Tiburon, CA 94920	Secondary	0.04
Marin County (Tiburon), Sanitary District No. 5 of	Tony Rubio, District Manager, (415) 435-1501 ext. 106	2001 Paradise Drive Tiburon, CA 94920	Secondary	0.98
Millbrae, City of, and North Bayside System Unit	Khee Lim, Public Works Director, (650) 259-2347	621 Magnolia Avenue Millbrae, CA 94030	Secondary	3.0
Mt. View Sanitary District	Lilia Corona, Assistant District Manager, (925) 228-5635 ext. 18	P.O. Box 2757 Martinez, CA 94553	Advanced Secondary	3.2
Napa Sanitation District	Jim Keller, Plant Manager, (707) 258-6020	1515 Soscol Ferry Road Napa, CA 94558	Secondary	15.4
Novato Sanitary District	Sandeep Karkal, General Manager, (415) 892-1694	500 Davidson Street Novato, CA 94945	Secondary	7.0
Palo Alto, City of	James Allen, Plant Manager, (650) 329-2243	2501 Embarcadero Way Palo Alto, CA 94303	Advanced Secondary	39
Petaluma, City of	Matthew Pierce, Operations Supervisor, (707) 776-3726	202 N. McDowell Blvd. Petaluma, CA 94954	Secondary	6.7
Pinole, City of	Josh Binder, Plant Manager (510) 724-8964	2131 Pear Street Pinole, CA 94564	Secondary	4.06
Rodeo Sanitary District	Steve Beall, District Manager, (510) 799-2970	800 San Pablo Avenue Rodeo, CA 94572	Secondary	1.14
St. Helena, City of	Mark Rincon-Ibarra, Public Works Director, (707) 312-1208	1572 Railroad Avenue St. Helena, CA 94574	Secondary	0.50
San Francisco, City and County of (San Francisco International Airport), and North Bayside System Unit	Jennifer Acton, Environmental Operations Manager, (650) 455-9241	P.O. Box 8097 San Francisco, CA 94128	Secondary	2.2
San Francisco, City and County of (Southeast Plant)	Amy Chastain, Regulatory Compliance Manager, (415) 554-1683	525 Golden Gate Avenue, 13 th Floor San Francisco, CA 94103	Secondary	85.4
San Jose and Santa Clara, Cities of	Eric Dunlavy, Wastewater Compliance Program Manager, (408) 635-4017	700 Los Esteros Road San Jose, CA 95134	Advanced Secondary	167
San Mateo, City of	Michael Sutter, Operations Superintendent, (650) 522-7380	330 West 20 th Avenue San Mateo, CA 94403	Secondary	15.7
Sausalito-Marín City Sanitary District	Omar Arias-Montez, Chief Plant Operator, (415) 331-4712	1 East Road Sausalito, CA 94965	Secondary	1.8

Discharger	Facility Contact	Mailing Address	Effluent Description	Facility Design Flow (MGD)
Sewerage Agency of Southern Marin	Mark Grushayev, General Manager, (415) 384-4825	26 Corte Madera Avenue Mill Valley, CA 94941	Secondary	3.6
Silicon Valley Clean Water	Monte Hamamoto, Chief Operating Officer, (650) 832-6266	1400 Radio Road Redwood City, CA 94065	Secondary	29
Sonoma Valley County Sanitation District	Frank Mello, Operations Coordinator, (707) 521-1843	404 Aviation Blvd. Santa Rosa, CA 95403	Secondary	3.0
South San Francisco and San Bruno, Cities of, and North Bayside System Unit	Brian Schumacker, Plant Superintendent, (650) 829-3844	195 Belle Air Road South San Francisco, CA 94080	Secondary	13
Sunnyvale, City of	Leonard Espinoza, Acting Water Pollution Control Plant Division Manager, (408) 730-7771	P.O. Box 3707 Sunnyvale, CA 94088	Advanced Secondary	29.5
Treasure Island Development Authority	Amy Chastain, Regulatory Compliance Manager, San Francisco Public Utilities Commission (415) 554-1683	1 Avenue of the Palms, Suite 241 San Francisco, CA 94130	Secondary	2.0
Vallejo Flood and Wastewater District	Jennifer Harrington, Environmental Services Director, (707) 652-7806	450 Ryder Street Vallejo, CA 94590	Secondary	15.5
West County Agency; West County Wastewater District; City of Richmond; and Richmond Municipal Sewer District No. 1	Lisa Malek-Zadeh, General Manager, (510) 222-6700	2910 Hilltop Drive Richmond, CA 94806	Secondary	28.5
Yountville, Town of	Eric Sanders, Chief Plant Operator, (707) 944-2988	6550 Yount Street Yountville, CA 94599	Advanced Secondary	0.55

2. BACKGROUND

2.1. The Regional Water Board issued waste discharge requirements that serve as National Pollutant Discharge Elimination System (NPDES) permits for the dischargers listed in Table 1 (Dischargers). These Dischargers own and operate municipal wastewater treatment facilities as described in their individual permits. Treated wastewater is discharged to San Francisco Bay and its tributaries, which are waters of the United States within the San Francisco Bay Region.

The Regional Water Board also issued NPDES permit CA0038849 (currently Order R2-2017-0041) for the Dischargers, implementing total maximum daily load requirements for mercury and PCBs from wastewater discharges to San Francisco Bay and its tributaries.

2.2. By Resolution 92-043, the Regional Water Board directed its Executive Officer to implement a regional monitoring plan in collaboration with permitted dischargers pursuant to Water Code sections 13267 and 13383. The goal was to replace most individual receiving water monitoring requirements with a comprehensive regional

monitoring program. Thus, the San Francisco Bay Regional Monitoring Program for Toxic Pollutants and Trace Substances (RMP) was created.

The guiding principle of the RMP is to collect data and communicate information about San Francisco Bay water quality in support of management decisions to restore and protect beneficial uses of the region's waters. To meet permit requirements, participating dischargers pay annual fees for the RMP in accordance with a budget allocation approved by the Executive Officer.

The RMP provides an open forum for a wide range of participants. A Steering Committee reviews and selects study proposals, allocates RMP funds, and evaluates program effectiveness. Historically, the San Francisco Estuary Institute and others have identified more water quality issues meriting study than RMP funds can support.

2.3. On March 9, 2016, the Regional Water Board adopted Order R2-2016-0008, which amended permits to reduce monitoring frequencies for certain parameters and allocate the cost savings to support additional RMP studies. Participation in Order R2-2016-0008 was voluntary. Of 38 eligible dischargers, 36 participated. For those, Order R2-2016-0008 replaced the monitoring requirements in individual permits as follows:

- Eliminated screening for chronic toxicity with each permit reissuance,
- Reduced effluent monitoring for dioxin-TEQ to once per permit term,
- Reduced pretreatment monitoring for effluent volatile organic compounds (VOCs) and base/neutral and acid extractable compounds (BNAs) to once permit term,
- Reduced effluent monitoring for PCBs (as aroclors) to once per permit term, and
- Reduced effluent priority pollutant monitoring for VOCs, BNAs, and chlorinated pesticides to once per permit term where individual permits did not include an effluent limit.

At the time, the Regional Water Board concluded that allocating the cost savings associated with these monitoring reductions toward additional RMP studies would be a better use of resources.

2.4. One of the core RMP activities is to study constituents of emerging concern (CECs). Early identification of CECs and quick action to prevent water quality impacts is an optimal and cost-effective strategy to protect water quality. This is especially true for San Francisco Bay, which can act as a long-term sink for persistent contaminants, with recovery taking decades or centuries when contamination is extensive.

- 2.5. On May 28, 2021, the Bay Area Clean Water Agencies submitted *Proposed Evolution of the 2016 Alternate Monitoring & Reporting Program to Add Support to the Regional Monitoring Program* (BACWA Report), calling on the Regional Water Board to replace Order R2-2016-0008 with a new set of monitoring frequency reductions to support RMP monitoring of CECs.

The regulations at 40 C.F.R. section 122.42(a)(2) allow the Regional Water Board to modify permits during their terms when new information becomes available that was unavailable at the time of permit issuance. Here, a key component of Order R2-2016-0008, a waiver for dischargers to conduct chronic toxicity species sensitivity screening studies with each permit reissuance, is now inconsistent with new toxicity regulations the State Water Board recently adopted. The mandate to conduct sensitivity screening studies will significantly reduce the expected cost savings associated with the reduced monitoring requirements in Order R2-2016-0008. This will eliminate the incentive for dischargers to opt for the reduced monitoring requirements because the cost savings will no longer offset the payments Order R2-2016-0008 requires be directed toward RMP CECs studies. To ensure that dischargers continue to provide this supplemental RMP funding, it's necessary to modify the monitoring and reporting requirements established in Order R2-2016-0008. As permits are reissued, these modifications can be maintained through individual permits.

3. RATIONALE FOR CHANGES

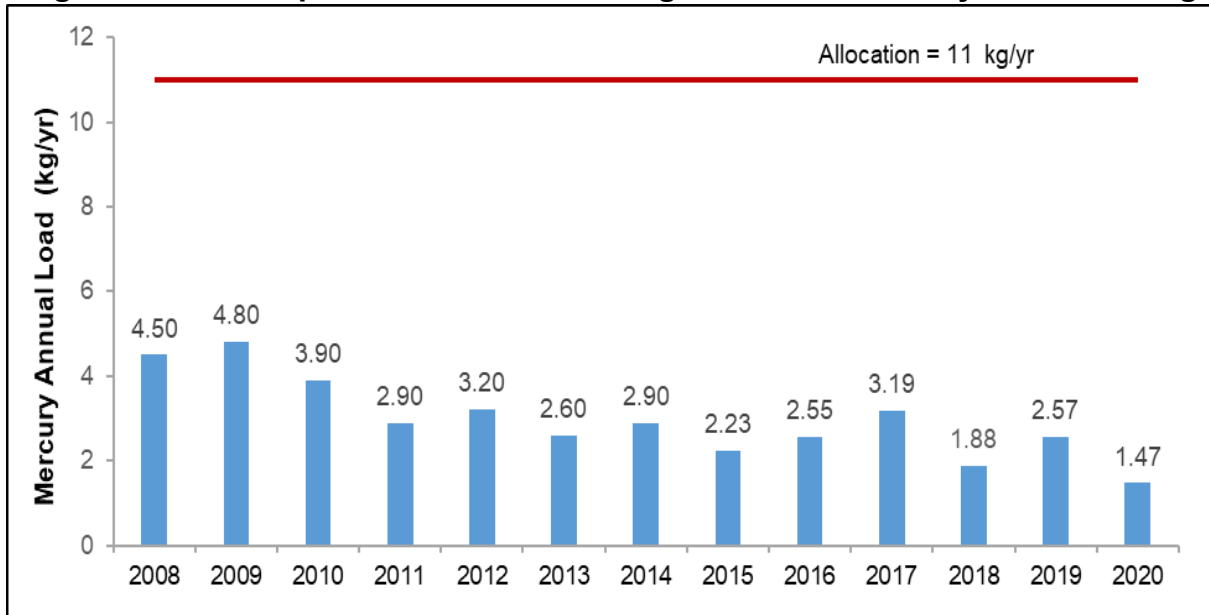
- 3.1 **Chronic Toxicity Screening.** This Order continues to eliminate the requirement for chronic toxicity species sensitivity screening with each permit reissuance consistent with Order R2-2016-0008. Prior to Order R2-2016-0008, and starting in the mid-1990s, major dischargers conducted screenings with each permit reissuance. The BACWA Report indicates that the collective costs savings from eliminating chronic toxicity screenings with each permit reissuance would be about \$210,000 per year.

When U.S. EPA approves new toxicity regulations, such as those in the State Water Board's *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California and Toxicity Provisions* (Toxicity Provisions), the Regional Water Board may implement the new screening requirements by amending or reissuing the individual permits. If approved, the Toxicity Provisions would mandate that Dischargers conduct a chronic toxicity screening at least once every 15 years. If the Regional Water Board were to allow Dischargers to conduct chronic toxicity screenings based on the minimum requirement set forth in the Toxicity Provisions, the cost savings would be about \$140,000 per year relative to the requirement that Dischargers conduct chronic toxicity screenings with each permit reissuance. However, these cost savings are unlikely to be attained in the near term since most Dischargers will need to conduct at least one chronic toxicity screening to satisfy chronic toxicity monitoring requirements set forth in the Toxicity Provisions.

- 3.2. Dioxins and Furans (Dioxin-TEQ).** This Order continues to reduce the effluent dioxins and furans monitoring frequency to once per permit term consistent with Order R2-2016-0008. Dischargers have monitored for dioxin-TEQ since the mid-1990s using EPA Method 1613. Typically, no congeners have been detected at quantifiable levels, except for low levels of hepta- and octa-congeners, the least toxic of the congeners. The primary sources of dioxin-TEQ in municipal wastewater are food, human waste, and laundry grey water. These sources are unlikely to change. The BACWA Report estimates that the collective cost savings from reducing dioxin-TEQ monitoring to once per permit term would be about \$40,000 per year based on the median laboratory cost.
- 3.3 Priority Pollutants.** This Order continues to reduce the effluent priority pollutant monitoring frequency for VOCs, BNAs, and chlorinated pesticides to once per permit term unless a discharger's individual permit includes an effluent limit. For dischargers with effluent limits, individual orders establish the monitoring frequencies. Effluent data obtained using EPA Methods 624 (VOCs), 625 (BNAs), and 608 (chlorinated pesticides) show that, with a few exceptions, these pollutants have not been detected. When these pollutants are detected, the individual permits listed in Table 1 impose effluent limits and monitoring requirements. The BACWA Report does not estimate additional cost savings from reducing effluent monitoring for VOCs, BNAs, and chlorinated pesticides because monitoring these pollutants involves the same U.S. EPA test methods as those used for VOCs and BNAs pretreatment monitoring and PCBs (as aroclors) (see Section 3.5).
- 3.4 Mercury and PCBs.** This Order continues to reduce the effluent PCBs (as aroclors) monitoring frequency to once per permit term consistent with Order R2-2016-0008. Dischargers have monitored for PCBs (as aroclors) since 2002 using EPA Method 608. No PCBs (as aroclors) have been detected. The BACWA Report estimates that the collective cost savings from reducing effluent PCBs (as aroclors) monitoring to once per permit term would be about \$13,000 per year based on the median laboratory cost.

This Order reduces the effluent monitoring frequency for mercury established in Order R2-2017-0041 for major discharges from monthly to quarterly, and for minor dischargers from quarterly to twice per year. This new reduction is appropriate because dischargers have been well below their TMDL allocations and comply with the mercury concentration limits in Order R2-2017-0041. Based on data obtained using EPA Method 1669, Figure F-1 shows that the annual mercury mass loading from all Dischargers has been well below the TMDL allocation for the past 12 years.

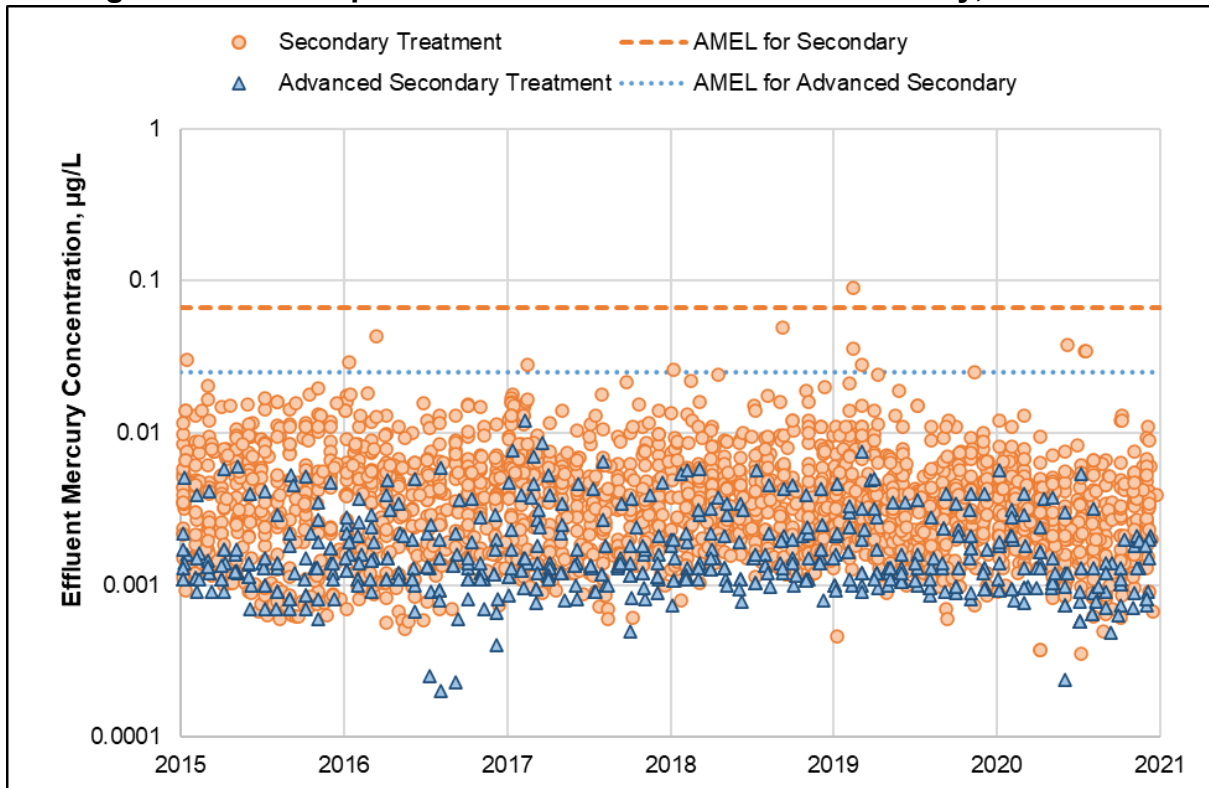
Figure F-1. Municipal Wastewater Dischargers Annual Mercury Mass Loading



Source: https://www.waterboards.ca.gov/rwqcb2/board_info/agendas/2021/March/4_ssr.pdf

Figure F-2 shows that effluent mercury concentrations are also well below the average monthly effluent limitations in Order R2-2017-0041. From 2015 through 2020, Dischargers collected 2,763 samples and found only one violation. Accelerated monitoring demonstrated compliance the following month.

Figure F-2. Municipal Wastewater Effluent Data for Mercury, 2015-2020



Source: Bay Area Clean Water Agencies, *Proposed Evolution of the 2016 Alternate Monitoring & Reporting Program to Add Support to the Regional Monitoring Program*, May 28, 2021.

Because past data show a reduced monitoring frequency will be adequate to characterize mercury loads to San Francisco Bay, re-allocating the cost of effluent mercury analysis toward additional RMP studies of CECs would be a better use of resources. Based on the median laboratory costs in the BACWA Report, the collective cost savings from reducing effluent mercury monitoring to once per quarter for major dischargers and twice per year for minor dischargers would be about \$123,000 per year.

3.5. Pretreatment and Biosolids.

3.5.1. Effluent VOCs and BNAs. This Order continues to reduce the effluent VOCs and BNAs monitoring frequencies for dischargers with pretreatment programs identified in Table 1 of the Order to once per permit term consistent with Order R2-2016-0008. The pretreatment program requires treatment and control of pollutants from industrial sources that discharge to the sanitary sewer system to (1) prevent pass-through and upset of municipal wastewater treatment facilities, and (2) protect workers. Effluent data for VOCs and BNAs obtained using EPA Methods 624 and 625 show that, with few exceptions, VOCs and BNAs have not been detected. When these pollutants are detected, the individual permits listed in Table 1 impose effluent limits and monitoring requirements. The BACWA Report estimates that the collective cost savings from reducing effluent VOCs and BNAs pretreatment monitoring to once per permit term would be about \$26,000 per year based on the median laboratory cost.

3.5.2. Influent Mercury. This Order establishes a consistent influent monitoring frequency for mercury of once per quarter for dischargers with pretreatment programs listed in Table 1 of the Order. This will reduce the monitoring frequency for most of these dischargers because most currently monitor once per month. However, it would increase the required monitoring frequency for the East Bay Dischargers Authority member agencies, City of Livermore, Dublin San Ramon Services District, City of Millbrae, Cities of South San Francisco and San Bruno, City of Burlingame, and Delta Diablo.

Dischargers use influent mercury data to fulfill the following pretreatment program goals:

- Confirm the effectiveness of residential and commercial source control programs, such as the requirement for dental offices to install amalgam separators,
- Track mercury removal through the treatment plant, which is used to establish local limits for industrial dischargers, and
- Confirm that influent loads are not increasing due to unpermitted dischargers.

Due to the large amount of baseline information already obtained using EPA Method 245.1, the typical range for influent mercury concentrations is well-established. Therefore, the new monitoring frequency of once per quarter will be sufficient to fulfill the pretreatment program goals. Re-allocating the cost of influent mercury analysis toward additional RMP studies of CECs would be a better use of resources. Based on the median laboratory costs in the BACWA Report, the collective cost savings from reducing influent mercury monitoring to once per quarter would be about \$6,000 per year.

3.5.3. Influent VOCs and BNAs. This Order reduces the influent VOCs and BNAs monitoring frequencies for dischargers with pretreatment programs identified in Table 1 of the Order. These reductions are consistent with Attachment H, Appendix H-4, of the individual orders for dischargers with pretreatment programs. Attachment H establishes minimum influent VOCs and BNAs monitoring frequencies based on the number of significant industrial users (SIUs) in each discharger's service area. Non-significant categorical industrial users as defined in 40 C.F.R. section 403.3(v)(2) are not included in the SIU count. Based on each discharger's 2020 Annual Pretreatment Report, the new monitoring frequencies for each discharger are shown in Table F-2 below. The changes would reduce the monitoring frequencies for 14 dischargers and increase the monitoring frequencies for 2 dischargers (Delta Diablo, and South San Francisco and San Bruno).

Table F-2. Influent Monitoring Frequencies for VOCs and BNAs

Discharger	Number of SIUs	VOCs (Method 624) Sampling Frequency ^[1]	BNAs (Method 625) Sampling Frequency
American Canyon, City of	3	Once	Once
Burlingame, City of, and North Bayside System Unit	0	Once	Once
Central Contra Costa Sanitary District	19	1/Year	1/Year
Central Marin Sanitation Agency	2	Once	Once
Delta Diablo Sanitation District	19	1/Year	1/Year
Dublin-San Ramon Services District	7	1/Year	1/Year
East Bay Municipal Utility District	9	1/Year	1/Year
Fairfield-Suisun Sewer District	5	Once	Once
Hayward, City of	43	1/Year	1/Year
Livermore, City of	13	1/Year	1/Year
Millbrae, City of	0	Once	Once
Novato Sanitary District	3	Once	Once
Oro Loma and Castro Valley Sanitary Districts	4	Once	Once
Palo Alto, City of	12	1/Year	1/Year
Petaluma, City of	5	Once	Once
Richmond, City of and Richmond Municipal Sewer District	7	1/Year	1/Year
San Jose and Santa Clara, Cities of	127	2/Year	2/Year
San Leandro, City of	8	1/Year	1/Year
San Mateo, City of	0	Once	Once

Discharger	Number of SIUs	VOCs (Method 624) Sampling Frequency ^[1]	BNAs (Method 625) Sampling Frequency
Silicon Valley Clean Water	25	1/Year	1/Year
South San Francisco and San Bruno, Cities of, and North Bayside System Unit	26	1/Year	1/Year
Sunnyvale, City of	31	1/Year	1/Year
Union Sanitary District	38	1/Year	1/Year
Vallejo Flood and Wastewater District	7	1/Year	1/Year
West County Wastewater District	7	1/Year	1/Year

^[1] Once means a sampling frequency of once during the permit term.

Dischargers use influent VOCs and BNAs data to ensure that industrial loading of organic pollutants will not harm treatment plant operations, effluent quality, or wastewater workers. The BACWA Report indicates that about half of the dischargers with pretreatment programs already monitor at the minimum frequency established in Attachment H, and their experience indicates that lowering the influent VOCs and BNAs monitoring frequency will not prevent successful pretreatment program operations. Based on the median laboratory costs in the BACWA Report, the estimated collective cost savings from reducing influent VOCs and BNAs monitoring would be about \$12,000 per year.

3.5.4. Biosolids. This Order reduces biosolids VOCs and BNAs monitoring frequencies for dischargers with pretreatment programs identified in Table 1 of the Order. These reductions are consistent with Attachment H, Appendix H-4, of the individual orders for dischargers with pretreatment programs. Attachment H establishes minimum biosolids VOCs and BNAs monitoring frequencies based on the number of SIUs in each discharger's service area. Based on each discharger's 2020 Annual Pretreatment Report, the new monitoring frequencies for each discharger are shown in Table F-3 below. The changes would reduce the monitoring frequencies for 11 dischargers and increase the monitoring frequency for 3 dischargers (Delta Diablo, South San Francisco and San Bruno, and Vallejo Flood and Wastewater District).

Table F-3. Biosolids Monitoring Frequencies for VOCs and BNAs

Discharger	Number of SIUs	VOCs (Method 8260B) Sampling Frequency ^[1]	BNAs (Method 8270C) Sampling Frequency
American Canyon, City of	3	Once	Once
Burlingame, City of, and North Bayside System Unit	0	Once	Once
Central Contra Costa Sanitary District	19	1/Year	1/Year
Central Marin Sanitation Agency	2	Once	Once
Delta Diablo	19	1/Year	1/Year
Dublin-San Ramon Services District	7	1/Year	1/Year
East Bay Municipal Utility District	9	1/Year	1/Year
Fairfield-Suisun Sewer District	5	Once	Once

Discharger	Number of SIUs	VOCs (Method 8260B) Sampling Frequency ^[1]	BNAs (Method 8270C) Sampling Frequency
Hayward, City of	43	1/Year	1/Year
Livermore, City of	13	1/Year	1/Year
Millbrae, City of	0	Once	Once
Novato Sanitary District	3	Once	Once
Oro Loma and Castro Valley Sanitary Districts	4	Once	Once
Palo Alto, City of	12	1/Year	1/Year
Petaluma, City of	5	Once	Once
Richmond, City of and Richmond Municipal Sewer District	7	1/Year	1/Year
San Jose and Santa Clara, Cities of	127	2/Year	2/Year
San Leandro, City of	8	1/Year	1/Year
San Mateo, City of	0	Once	Once
Silicon Valley Clean Water	25	1/Year	1/Year
South San Francisco and San Bruno, Cities of, and North Bayside System Unit	26	1/Year	1/Year
Sunnyvale, City of	31	1/Year	1/Year
Union Sanitary District	38	1/Year	1/Year
Vallejo Flood and Wastewater District	7	1/Year	1/Year
West County Wastewater District	7	1/Year	1/Year

^[1] Once means a sampling frequency of once during the permit term.

Dischargers use biosolids VOCs and BNAs data to ensure that industrial loading of organic pollutants will not threaten biosolids quality. The BACWA Report indicates that about half of the dischargers with pretreatment programs already monitor at the minimum frequency established in Attachment H, and their experience indicates that lowering the biosolids VOCs and BNAs monitoring frequency will not prevent successful pretreatment program operations. Based on the median laboratory costs in the BACWA Report, the estimated collective cost savings from reducing biosolids VOCs and BNAs monitoring would be about \$8,000 per year.

3.6 Summary of Cost Savings. This Order proposes monitoring frequency reductions that would collectively save dischargers about \$228,000 per year based on median laboratory costs and up to \$368,000 per year if cost savings from chronic toxicity screenings are realized. The table below summarizes these savings:

Table F-4. Cost Savings from Reduced Monitoring

Parameter	Median Savings
Dioxin-TEQ	\$40,000
Effluent VOCs and BNAs	\$26,000
PCBs (as aroclors)	\$13,000
Effluent Mercury	\$123,000
Influent Mercury	\$6,000
Influent VOCs and BNAs	\$12,000
Biosolids VOCs and BNAs	\$8,000
Subtotal	\$228,000
Chronic Toxicity Screening	\$140,000
Total	\$368,000

3.7 San Francisco Bay Regional Monitoring Program. Water Code section 13383(a) authorizes the Regional Water Board to establish monitoring, reporting, and recordkeeping requirements as authorized by Water Code sections 13160, 13376, or 13377 for any person who discharges to navigable waters or owns or operates a publicly owned treatment works or other treatment works treating domestic sewage. Pursuant to Water Code section 13383, this Order requires the dischargers listed in Table 1, except for those where Order R2-2016-0008 is retained, to provide additional funds to the RMP to support CECs monitoring. Dischargers subject to Order R2-2016-0008 must provide such funds pursuant to that order.

Dischargers will need to spend additional funds to monitor for CECs if the RMP does not have sufficient funding to conduct this monitoring. There are efficiencies from collaborating large-scale studies, and \$320,000 per year would be an appropriate level of funding to support RMP CECs studies in calendar year 2022. In the future, this amount may be adjusted to reflect inflation, consistent with the existing practice of adjusting RMP fees for the wastewater sector.

Besides funding RMP studies, the Dischargers have historically contributed to their own individual and regional CEC studies. Contributions have included staff time, wastewater sampling, and funding (often using BACWA funds). This practice is expected to continue.

4. PUBLIC PARTICIPATION

4.1. Notification of Interested Parties. The Regional Water Board notified the dischargers listed in Table 1, and other interested agencies and persons, of a draft of this Order (tentative Order) and provided an opportunity to submit written comments and recommendations. The public had access to the agenda and any changes in dates and locations through the Regional Water Board's website at <http://www.waterboards.ca.gov/sanfranciscobay>.

4.2. Written Comments. Interested persons were invited to submit written comments concerning the tentative Order as explained through the notification process.

Comments were to be submitted either in person, by e-mail, or by mail to the to the attention of Robert Schlipf.

Written comments were due at the Regional Water Board office by 5:00 p.m. on **November 15, 2021**.

4.3. Public Hearing. The Regional Water Board held a public hearing on the tentative Order during its regular meeting at the following date and time:

Date: **December 15, 2021**

Time: 9:00 a.m.

Contact: Robert Schlipf, (510) 622-2478, Robert.Schlipf@waterboards.ca.gov

Interested persons were provided notice of the hearing and information on how to participate. During the public hearing, the Regional Water Board heard testimony pertinent to the discharge, and Order.

Dates and venue can change. The Regional Water Board's web address is <https://www.waterboards.ca.gov/sanfranciscobay>, where one can access the current agenda for changes.

4.4. Reconsideration of Amendment. Any person aggrieved by the Regional Water Board action may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050. The State Water Board must receive the petition at the following address within 30 calendar days of the Regional Water Board action:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

A petition may also be filed by email at waterqualitypetitions@waterboards.ca.gov.

For instructions on how to file a water quality petition for review, see [waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml](https://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml).

4.5. Information and Copying. Supporting documents and comments received are on file. To review these documents, contact Melinda Wong, the Regional Water Board's custodian of records, by calling (510) 622-2300 or emailing Melinda.Wong@waterboards.ca.gov. Document copying may be arranged.

4.6. Register of Interested Persons. Any person interested in being placed on the mailing list for information regarding NPDES permits should contact the Regional Water Board and provide a name, address, and phone number.

4.7. Additional Information. Requests for additional information or questions regarding this Order should be directed to Robert Schlipf, (510) 622-2478, Robert.Schlipf@waterboards.ca.gov.