

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESOLUTION NO. R2-2004-0003

Amending the Water Quality Control Plan For the San Francisco Bay Region
to Adopt Updated Water Quality Objectives and NPDES Implementation Provisions

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

1. An updated Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) was adopted by the Regional Board on June 21, 1995, approved by the State Water Resources Control Board (State Board) on July 20, 1995, and approved by the Office of Administrative Law (OAL) on November 13, 1995.
2. The proposed Basin Plan Amendment, which was developed in accordance with California Water Code (CWC) § 13240, consists of the following: Update and improve the scientific bases of regional water quality objectives for metals, based on dissolved concentrations instead of total concentrations; establish regionwide consistency in the application of water quality objectives and salinity-based definitions of fresh, estuarine, and marine waters; remove superseded NPDES implementation provisions; and revise sections of the Basin Plan that are out-of-date or inaccurate.
3. On May 18, 2000, the United States Environmental Protection Agency (USEPA) promulgated the California Toxics Rule (CTR) prescribing numeric water quality criteria for priority toxic pollutants. The CTR promulgated "around" the 1986 Basin Plan Tables III-2A and III-2B, which contained total metals objectives instead of dissolved metals objectives of the CTR. Waters south of the Dumbarton were exempted from Basin Plan water quality objectives at the time the CTR was promulgated. The CTR promulgated criteria for the Lower South Bay, since there were no legally applicable objectives. As a result, different water quality objectives for metals apply on either side of the Dumbarton Bridge.
4. On March 2, 2000, the State Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) to be effective as of May 22, 2000. Among other things, the SIP establishes implementation provisions for priority pollutant criteria promulgated by USEPA, including the CTR. The SIP establishes how toxic water quality objectives are translated into effluent limitations, and it supersedes many elements of the NPDES program described in the current Basin Plan, requiring some language changes.
5. The proposed Basin Plan Amendment changes water quality objectives (WQOs) for arsenic, cadmium, chromium, copper (freshwater only), lead, nickel, silver, and zinc to be consistent with the CTR. These changed WQOs are necessary and appropriate for consistency with the rest of the State and derivation of effluent limitations that are scientifically based.

6. The proposed Basin Plan Amendment establishes throughout the Region the CTR salinity-based definition of fresh, estuarine, and marine waters. The 1995 Basin Plan and CTR have different definitions of freshwater and marine. These differences complicate the permitting process. The CTR definitions of fresh, estuarine and marine waters apply when CTR criteria apply; Basin Plan definitions apply when Basin Plan water quality objectives apply (as specified by State Water Resources Control Board (2002). Order WQO 2002-0011). As a result, a single discharge could, potentially, be classified in two different ways, depending upon the location of the discharge and the pollutant under consideration.
7. The proposed Basin Plan Amendment refers to provisions of the SIP, pertaining to NPDES permitting, for existing Basin Plan implementation provisions (Chapter 4), where the SIP has superseded these provisions. This amendment removes superseded and obsolete Basin Plan implementation provisions that no longer legally apply, and updates and clarifies the Basin Plan accordingly.
8. The proposed Basin Plan Amendment updates text that is out-of-date, inaccurate or unclear. These non-regulatory revisions address topics such as: Anti-degradation policy, site-specific objectives, South Bay exemption for WQOs, bacteriological objectives, erosion guidance, and effluent limitation for settleable matter.
9. The proposed WQOs are based on the CTR and are fully protective of the most sensitive aquatic life beneficial uses.
10. The proposed WQOs comply with state and federal antidegradation requirements as set forth in the Staff Report dated December 19, 2003 (Staff Report).
11. The Board has considered those CWC § 13241 factors to be considered when establishing water quality objectives, as set forth in the Staff Report.
12. The Board has considered the impacts of the proposed Basin Plan Amendment on those affected by the proposed Basin Plan Amendment, namely publicly owned treatment works (POTWs) and industrial dischargers, including economic impacts. There are minimal economic impacts that would result from the proposed Basin Plan Amendment. The WQOs are currently being met in receiving waters; thus, no additional treatment measures are necessary to achieve compliance with the proposed objectives.
13. On January 21, 2004, the Regional Board held a public hearing to consider this Basin Plan Amendment. Notice of the public hearing was given to all interested persons and was published in accordance with CWC § 13244 and 40 CFR § 25.5.
14. Regional Board staff prepared and distributed a draft Staff Report, dated October 22, 2003, regarding adoption of the proposed Basin Plan Amendment in accordance with applicable state and federal environmental regulations (California Code of Regulations, §3775, Title 23 and 40 CFR Parts 25 and 131).
15. The process of basin planning has been certified by the Secretary for Resources as exempt from the requirement of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) to prepare an Environmental Impact Report or Negative Declaration. The Basin Plan Amendment package includes a staff report, an Environmental Checklist, an assessment of the potential environmental impacts of the Basin Plan amendments, and a discussion of alternatives. The Basin Plan Amendment,

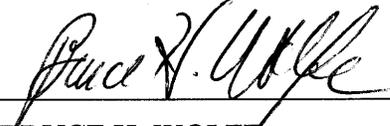
Environmental Checklist, Staff Report, and supporting documentation are functionally equivalent to an Environmental Impact Report or Negative Declaration. The Board has duly considered the Environmental Checklist, staff report and supporting documentation with respect to environmental impacts and finds that proposed Basin Plan Amendment will not have a significant impact on the environment. The Board further finds, based on consideration of the record as a whole, that there is no potential for adverse effect, either individually or cumulatively, on wildlife as a result of the proposed Basin Plan Amendment.

16. The Basin Plan Amendment must be submitted for review and approval by the State Board, the Office of Administrative Law (OAL), and USEPA. Once approved by the State Board, the amendment is submitted to OAL and USEPA. The Basin Plan Amendment will become effective upon approval by OAL and USEPA.

NOW, THEREFORE BE IT RESOLVED THAT:

1. The Water Board adopts the Amendment to the Basin Plan as set forth in the Staff Report dated December 19, 2003, as amended by the Supplemental to Item 9, attached hereto.
2. The Executive Officer is directed to forward copies of the Basin Plan Amendment to the State Board in accordance with the requirement of CWC Section 13245.
3. The Water Board requests that the State Board approve the Basin Plan Amendment in accordance with the requirements of CWC Sections 13245 and 13246 and forward it to the OAL and USEPA for approval.
4. If, during the approval process, the State Board or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Regional Board of any such changes.
5. Since the Basin Plan Amendment will involve no potential for adverse effect, either individually or cumulatively, on wildlife, the Executive Officer is directed to sign a Certificate of Fee Exemption for a "De Minimis" Impact Finding.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 21, 2004.



BRUCE H. WOLFE
Executive Officer

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

SUPPLEMENTAL TO ITEM 9, Proposed Amendment to the Water Quality Control Plan (Basin Plan) for San Francisco Bay Region to Update Water Quality Objectives and NPDES Implementation Provisions

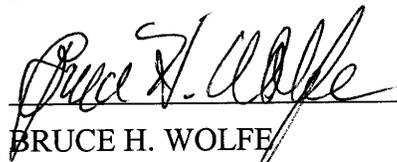
JANUARY 21, 2004

The replacement pages are attached for the following supplemental change:

Page 3 of Appendix C, Revision B, Table 3-4, Footnote a, is revised to be consistent with Table 3-3, Footnote a. The California Toxics Rule currently applies to freshwaters of the South San Francisco Bay, south of the Dumbarton Bridge, as well as marine waters. This corrects a clerical mistake, as it was not the intent of staff to recommend changes to existing California Toxics Rule applicability for fresh, estuarine, and marine waters south of Dumbarton Bridge. This correction continues the status quo and is not a substantive revision.

Page 9 of Appendix D, Amended Basin Plan, is also revised to be consistent with the above underline/strikeout changes of Appendix C, Revision B, Table 3-4, Footnote a.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a supplemental to Agenda Item 9 adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 21, 2004.



BRUCE H. WOLFE
Executive Officer

REVISION B TABLE AND TEXT CHANGES

REVISION B(2), PAGE 3-10

TABLE 3-4 FRESHWATER WATER QUALITY OBJECTIVES FOR TOXIC POLLUTANTS FOR SURFACE WATERS WITH SALINITIES LESS THAN 5 PPT^{a,b} (ALL VALUES IN UG/L)

COMPOUND	4-DAY AVERAGE ^c	1-HR AVERAGE ^c	24-HR AVERAGE ^d	INSTANTANEOUS MAXIMUM ^d
Arsenic	190.0	360.0		
Cadmium	e	e		
Chromium (VI) ^f	11.0	16.0		
Copper ^g	6.5	9.2		
Cyanide	5.2	22.0		
Lead	h	2.4		
Nickel	j	j	56.0	1100.0
Selenium				
Silver ^k				1.2
Tributyltin ^l				
Zinc	m	m	58.0	170.0
PAHs ⁿ				

NOTES:

a. Freshwaters are those ~~These objectives shall apply to all estuarine and inland surface waters within the region in which the salinity is equal to or less than 1 part per thousand 95% of the time, as set forth in Chapter 4 of the Basin Plan. Unless a site-specific objective has been adopted, these objectives shall apply to all freshwater waters, except for the South Bay below south of Dumbarton Bridge, where the California Toxics Rule (CTR) applies. For waters in which the salinity is between 1 and 10 parts per thousand, the applicable objectives are the more stringent of the marine (Table 3-3) and freshwater objectives. where the salinity is less than 5 ppt, except for the South Bay below Dumbarton Bridge.~~

b. The values reported in this table are derived from the 1980 and 1984 U.S. EPA Ambient Water Quality Criteria for salt water and fresh water (unless otherwise specified) and were adopted by the Regional Board in 1986. In 1992, the Regional Board adopted a more inclusive set of objectives reflecting

more recent technical information; this set of objectives had been developed and adopted as part of the statewide Inland Surface Waters and Enclosed Bays and Estuaries Plan and was ruled invalid by a court decision in 1993. The U.S. EPA is expected to promulgate final water quality standards for the California in late 1995. The national standards will then apply to all planning, monitoring, NPDES permitting, enforcement, and compliance programs conducted under the Clean Water Act within the state.

c. Source: U.S. EPA 1984.

d. Source: U.S. EPA 1980.

e. The objectives for cadmium and other noted metals are expressed by formulas where H = ln (hardness) as CaCO₃ in mg/l: The four-day average objective for cadmium is e (0.7852 H - 3.490) . This is 1.1 µg/l at a hardness of 100 mg/l as CaCO₃ . The one-hour average objective for cadmium is e (1.128 H - 3.828) . This is 3.9 µg/l at a hardness of 100 mg/l as CaCO₃ .

AMENDED BASIN PLAN

PAGE 3-10

TABLE 3-4. FRESHWATER^a WATER QUALITY OBJECTIVES FOR TOXIC POLLUTANTS FOR SURFACE WATERS (ALL VALUES IN UG/L)

COMPOUND	4-DAY AVERAGE	1-HR AVERAGE
Arsenic ^{b, c, d}	150	340
Cadmium ^{b, c, d}	2.2 ^e	4.3 ^e
Chromium III ^f		
Chromium VI ^{b, c, d, g}	11	16
Copper ^{b, c, d}	9.0 ^h	13 ^h
Cyanide ⁱ		
Lead ^{b, c, d}	2.5 ^j	65 ^j
Mercury ^k	0.025	2.4
Nickel ^{b, c, d}	52 ^l	470 ^l
Selenium ^m		
Silver ^{b, c, d}		3.4 ⁿ
Tributyltin ^o		
Zinc ^{b, c, d}	120 ^p	120 ^p

NOTES:

- a. Freshwaters are those in which the salinity is equal to or less than 1 part per thousand 95% of the time, as set forth in Chapter 4 of the Basin Plan. Unless a site-specific objective has been adopted, these objectives shall apply to all freshwaters except for the South Bay south of Dumbarton Bridge, where the California Toxics Rule (CTR) applies. For waters in which the salinity is between 1 and 10 parts per thousand, the applicable objectives are the more stringent of the marine (Table 3-3) and freshwater objectives.
- b. Source: 40 CFR Part 131.38 (California Toxics Rule or CTR), May 18, 2000.
- c. These objectives for metals are expressed in terms of the dissolved fraction of the metal in the water column.
- d. These objectives are expressed as a function of the water-effect ratio (WER), which is a measure of the toxicity of a pollutant in site water divided by the same measure of the toxicity of the same pollutant in laboratory dilution water. The 1-hr. and 4-day objectives = table value X WER. The table values assume a WER equal to one.
- e. The objectives for cadmium are based on hardness. The table values assume a hardness of 100 mg/l CaCO₃. At other hardnesses, the objectives must be calculated using the following formulas where H = ln (hardness): The 4-day average objective for cadmium is $e^{(0.7852H-2.715)}$. The 1-hour average for cadmium is $e^{(1.128H-3.6867)}$.
- f. Chromium III criteria were promulgated in the National Toxics Rule (NTR). The NTR criteria specifically apply to San Francisco Bay upstream to and including Suisun Bay and Sacramento-San