



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 131

[EPA-HQ-OW-2017-0303; FRL-9971-30-OW]

RIN 2040-AF71

Proposed Withdrawal of Certain Federal Water Quality Criteria Applicable to California: Lead, Chlorodibromomethane, and Dichlorobromomethane

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to amend the federal regulations to withdraw certain human health (water and organisms) water quality criteria and certain freshwater acute and chronic aquatic life water quality criteria, applicable to certain waters of California because California adopted, and EPA approved, criteria for these parameters that are considered protective of the uses for the waterbodies. The EPA is providing an opportunity for public comment to this proposed withdrawal of certain federally promulgated criteria. The withdrawal will enable California to implement their EPA-approved water quality criteria.

DATES: Comments must be received on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID No. **EPA-HQ-OW-2017-0303**,

at <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www2.epa.gov/dockets/commenting-epa-dockets>.

EPA is offering a virtual public hearing so that interested parties may also provide oral comments on this proposed rule. The virtual public hearing will be on January 25, 2018 from 9:00 a.m. to 11:00 a.m. Pacific Time. For more details on the public hearing and a link to register, please visit <https://www.epa.gov/wqs-tech/water-quality-standards-regulations-california>.

FOR FURTHER INFORMATION, CONTACT: For information with respect to California, contact **Diane E. Fleck, P.E. Esq.**, U.S. EPA Region 9, WTR-2, 75 Hawthorne St., San Francisco, CA 94105 (telephone: (415) 972-3527 or e-mail: Fleck.Diane@epa.gov). For general and administrative concerns, contact **Bryan “Ibrahim” Goodwin**, U.S. EPA

Headquarters, Office of Science and Technology, 1200 Pennsylvania, Avenue NW, Mail Code 4305T, Washington, DC 20460 (telephone: (202) 566–0762 or e-mail: Goodwin.Bryan@epa.gov).

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I. General Information

A. Does This Action Apply to Me?

No one is affected by the proposed action contained in this document. This proposed action would merely serve to withdraw certain federal water quality criteria that have been applicable to California that are no longer needed in light of approved state water quality criteria. If you have any questions regarding the applicability of this action to a particular entity, consult the person identified in the preceding section entitled “CONTACTS FOR FURTHER INFORMATION.”

II. Background

A. What are the Applicable Federal Statutory and Regulatory Requirements?

On May 18, 2000, EPA promulgated a final rule known as the “California Toxics Rule” (“CTR”) at 40 CFR 131.38. This final rule established numeric water quality criteria for priority toxic pollutants for the State of California, because the State had not complied fully with Section

303(c)(2)(B) of the Clean Water Act (CWA) (65 FR 31682).

Consistent with the basic tenet of the CWA, EPA developed the water quality standards program emphasizing State primacy. Although in the CTR EPA promulgated toxic criteria for California, EPA prefers that states maintain primacy, revise their own standards, and achieve full compliance (see 57 FR 60860, December 22, 1992). As described in the preamble to the final CTR (see 65 FR 31681 (May 18, 2000)), when California adopts, and EPA approves, water quality criteria that meet the requirements of the CWA, EPA will issue a rule amending the CTR to withdraw the federal criteria applicable to California.

Consistent with the procedure described in the preamble to the final CTR, EPA is proposing to amend the federal regulations to withdraw certain federally promulgated human health (water and organisms) water quality criteria and certain freshwater aquatic life (acute and chronic) water quality criteria, applicable in California. EPA is providing an opportunity for public comment because the criteria adopted by the State and approved by EPA, while as protective for CWA purposes as the federally promulgated criteria, are less stringent than the federally promulgated criteria that EPA is now proposing to withdraw.

B. What are the Applicable Federal Water Quality Criteria that EPA is Proposing to Withdraw?

This action proposes to amend the federal regulations to withdraw human health (water & organisms) criteria for chlorodibromomethane and dichlorobromomethane for a segment of New Alamo Creek and a segment of Ulati Creek, California. In addition, it proposes to amend the federal regulations to withdraw freshwater acute and chronic aquatic life criteria for lead for the

Los Angeles River and its tributaries.

1. Chlorodibromomethane and Dichlorobromomethane

On May 18, 2000, in the CTR, EPA promulgated federal regulations establishing water quality criteria for priority toxic pollutants for California. On November 3, 2011, California completed its adoption process to incorporate water quality criteria for chlorodibromomethane and dichlorobromomethane, for a segment of New Alamo Creek and a segment of Ulatis Creek. The State calls these criteria site-specific water quality objectives or site-specific objectives. On December 13, 2011, the State submitted the site-specific objectives to EPA Region 9 for review and approval.

On April 9, 2013, EPA approved site-specific objectives for that segment of New Alamo Creek and that segment of Ulatis Creek. The Central Valley Regional Water Quality Control Board adopted the objectives in Resolution No. R5-2010-0047, the California State Water Resources Control Board approved of the objectives in Resolution 2011-0036 and EPA subsequently approved the State Board action.

Because California now has site-specific human health (for water and organisms) criteria approved by EPA for CWA purposes for chlorodibromomethane and dichlorobromomethane for a segment of New Alamo Creek and a segment of Ulatis Creek, EPA has determined that the federally promulgated human health (water and organisms) criteria are no longer needed for these particular waters. The incremental cancer risk levels associated with the California site-specific objectives, based on the risk assessment in EPA's National Recommended Water Quality

Criteria (2006), would range from $10^{-4.55}$ to $10^{-4.91}$. EPA determined that these objectives assure that cancer risk to the most highly exposed population would not exceed a 10^{-4} cancer risk level, even if the population consumed 2 L/day of water and up to 17.5 g/day or more of fish/shellfish from the segments for a 70-year lifetime. States and authorized Tribes have the flexibility to adopt water quality criteria that result in a risk level higher than 10^{-6} , up to the 10^{-5} level. That flexibility is constrained, however, by the need for careful consideration of the associated exposure parameter assumptions, and whether the resulting criteria would expose sensitive subpopulations consuming fish at unsuppressed rates to no more than a 10^{-4} cancer risk. Thus, EPA approved the State's site-specific objectives, which are less stringent than the federally promulgated criteria, because EPA determined that the State's site-specific objectives were scientifically sound and protective of the designated use(s) for the segment of New Alamo Creek and the segment of Ulatis Creek. More information on EPA's action, which approved California's adopted objectives, including EPA's approval letter and Record of Decision, can be accessed at OW docket number EPA-HQ-OW-2017-0303.

The following has been excerpted from the Water Quality Control Plan for the California Regional Water Quality Control Board - Central Valley Region (Basin Plan) - Resolution No. R5-2010-0047. Attachment 1 includes under the heading "ORGANIC CHEMICAL WATER QUALITY OBJECTIVES," California's recently adopted site-specific objectives for chlorodibromomethane and dichlorobromomethane, for a segment of New Alamo Creek and a segment of Ulatis Creek.

CHAPTER III: WATER QUALITY OBJECTIVES:

Revise the first paragraph of the Chemical Constituents section of Chapter III. Water Quality Objectives as follows:

Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses. The chemical constituent objectives in ~~Table~~ Tables III-1 and III-1A apply to the water bodies specified.

<u>Constituent</u>	<u>Table III-1A</u> <u>Organic Chemical Water Quality Objectives</u> <u>Maximum Concentration (ug/l)</u>	<u>Applicable Water Bodies</u>
<u>Chlorodibromomethane (DBCM)</u>	4.9 µg/l	<u>New Alamo Creek, from Old Alamo Creek to Ulatis Creek</u> <u>Ulatis Creek, from New Alamo Creek to Cache Slough</u>
<u>Dichlorobromomethane (DCBM)</u>	16 µg/l	<u>New Alamo Creek, from Old Alamo Creek to Ulatis Creek</u> <u>Ulatis Creek, from New Alamo Creek to Cache Slough</u>

As explained above, EPA seeks public comment before withdrawing the federally promulgated criteria because although these state criteria have been determined to be scientifically sound and protective of the designated use(s) for the particular waters and otherwise meet the requirements of the CWA and EPA's implementing regulations at 40 CFR 131, the state criteria are less stringent than the promulgated federal criteria (see Table 1). This

proposal will result in the withdrawal of federal human health (water & organisms) criteria under the CTR for chlorodibromomethane and dichlorobromomethane for a segment of New Alamo Creek and a segment of Ulatis Creek. However, the criteria for chlorodibromomethane and dichlorobromomethane for other waters in California that are currently part of the CTR will remain in the federal promulgations.

Table 1: Comparison of CTR Promulgations and CA Criteria for Chlorodibromomethane and Dichlorobromomethane for Certain CA waters

Parameter and Criterion	Source Document	Criterion Value
Chlorodibromomethane: Human Health Criterion for Consumption of Water and Organisms	40 CFR 131.38 (or CTR)	0.41 $\mu\text{g/L}$
	California Adopted and EPA approved for CWA Purposes, applicable to a segment of New Alamo Creek and a segment of Ulatis Creek, California	4.9 $\mu\text{g/L}$
Dichlorobromomethane: Human Health Criterion for Consumption of Water and Organisms	40 CFR 131.38 (or CTR)	0.56 $\mu\text{g/L}$
	California Adopted and EPA approved for CWA Purposes, applicable to a segment of New Alamo Creek and a segment of Ulatis Creek, California	16 $\mu\text{g/L}$

2. Lead

On May 18, 2000, in the CTR, EPA promulgated federal regulations establishing water quality criteria for priority toxic pollutants for California. On July 11, 2016, California completed its adoption process to incorporate water quality objectives for lead for the Los Angeles River and its tributaries. The State calls these criteria site-specific water quality objectives or site-specific objectives. On July 19, 2016, the State submitted the site-specific objectives to EPA Region 9 for review and approval. On December 12, 2016, EPA approved

site-specific objectives for lead for the Los Angeles River and its tributaries. The Los Angeles Regional Water Quality Control Board adopted these site-specific objectives under Resolution No. R15-004. The California State Water Resources Control Board in Resolution No. 2015-0069 subsequently approved the Regional Board action on these site-specific objectives, and EPA subsequently approved the State Board action.

Because California now has site-specific objectives for lead for the protection of aquatic life, approved by EPA for CWA purposes, for the Los Angeles River and its tributaries, EPA has determined that the federally promulgated freshwater acute and chronic aquatic life criteria for lead are no longer needed for these particular waters. 40 CFR 131.11(b)(1)(ii) allows States to establish water quality criteria that are "... modified to reflect site-specific conditions", and, site-specific criteria still must be based on a sound scientific rationale in order to protect the designated use. The State's site-specific objectives for lead were based on a recalculation of the water quality objectives established in 40 CFR 131.38 using the EPA Recalculation Procedure; this procedure takes into account updates or revisions in the national dataset used in the national water quality criterion development. EPA found that the State's application of the Recalculation Procedure for lead to be consistent with guidance for the development of site-specific standards using recalculation procedures. Thus, EPA approved the State's site-specific objectives for lead, which are less stringent than the federally promulgated criteria, because EPA determined that the State's site-specific objectives were scientifically sound and protective of the designated use(s) for the Los Angeles River and its tributaries and met the requirements of the CWA and EPA's

implementing regulations at 40 CFR 131. More information on EPA’s action, which approved California’s adopted objectives, including EPA’s approval letter and Record of Decision can be accessed at OW docket number EPA-HQ-OW-2017-0303.

The following has been excerpted from the Water Quality Control Plan for the Los Angeles Regional Water Quality Control Board- Attachment A to: Revision of Lead Water Quality Objectives for Los Angeles River and Tributaries, Resolution No. R15-004.

Revised Attachment A to Resolution No. R15-004

PROPOSED CHANGES TO BASIN PLAN

The following language will be added to Chapter 3, Water Quality Objectives of the Basin Plan:

...

*Add new “Lead” heading and paragraph under section heading **Priority Pollutants**. Changes are shown in underline text:*

Lead

For the Los Angeles River and its tributaries, the dissolved lead water quality objectives (in $\mu\text{g/L}$) are as follows¹:

*Acute (short-term) Lead Water Quality Objective Equation $D_{\text{Dissolved}} = (1.46203 - \ln(\text{hardness}) * 0.145712) * e^{1.466 * \ln(\text{hardness}) - 1.882}$*

*Chronic (4-day average) Lead Water Quality Objective Equation $D_{\text{Dissolved}} = (1.46203 - \ln(\text{hardness}) * 0.145712) * e^{1.466 * \ln(\text{hardness}) - 3.649}$*

¹ The dissolved lead water quality objectives for the Los Angeles River and its tributaries are based on a recalculation of the water quality objectives established in 40 C.F.R. § 131.38 using the US EPA Recalculation Procedure (US EPA 1994, 1997).

As explained above, EPA seeks public comment before withdrawing the federally promulgated criteria because although these state criteria have been determined to be scientifically sound and protective of the designated use(s) for the particular waters and otherwise meet the requirements of the CWA and EPA’s implementing regulations at 40 CFR 131, the state criteria are less stringent than the promulgated federal criteria (see Table 2 in this preamble). This proposal will result in the withdrawal of federal freshwater acute and chronic criteria for lead under the CTR for the Los Angeles River and its tributaries. However, the criteria for lead for other waters in California that are currently part of the CTR will remain in the federal promulgations.

Table 2: Comparison of CTR Promulgations and CA Criteria for Lead for Certain CA waters

Criterion	Source Document	Criterion Value
Freshwater Acute Criterion or Criterion Maximum Concentration	40 CFR 131.38 (or CTR)	$CMC = e^{(1.273 * \ln(\text{hardness}) - 1.460)} * (1.46203 - \ln(\text{hardness})) * 0.145712$ 65 µg/L, corresponding to a total hardness of 100 mg/L
	California Adopted and EPA approved for CWA Purposes, applicable to the Los Angeles River and its tributaries	$CMC = e^{(1.466 * \ln(\text{hardness}) - 1.882)} * (1.46203 - \ln(\text{hardness})) * 0.145712$ 103 µg/L, corresponding to a total hardness of 100 mg/L
Freshwater Chronic Criterion or Criterion Continuous Concentration	40 CFR 131.38 (or CTR)	$CCC = e^{(1.273 * \ln(\text{hardness}) - 4.705)} * (1.46203 - \ln(\text{hardness})) * 0.145712$ 2.5 µg/L, corresponding to a total hardness of 100 mg/L

	California Adopted and EPA approved for CWA Purposes, applicable to the Los Angeles River and its tributaries	$CCC = e^{(1.466 * \ln(\text{hardness}) - 3.649)} * (1.46203 - \ln(\text{hardness})) * 0.145712$ 17.6 $\mu\text{g/L}$, corresponding to a total hardness of 100 mg/L
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III. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563:

Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is expected to be an Executive Order 13771 deregulatory action. This proposed rule is expected to provide meaningful burden reduction by withdrawal of certain federally promulgated criteria in certain waters of California.

C. Paperwork Reduction Act (PRA)

This action does not impose any new information-collection burden under the PRA because it is administratively withdrawing federal requirements that are no longer needed in California. It does not include any information-collection, reporting, or recordkeeping requirements. The OMB has previously approved the information collection requirements contained in the existing regulations 40 CFR Part 131 and has assigned OMB control number 2040-0286.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial

number of small entities under the RFA. This action will not impose any requirements on small entities. Small entities, such as small businesses or small governmental jurisdictions, are not directly regulated by this rule.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments. As this action proposes to withdraw certain federally promulgated criteria, the action imposes no enforceable duty on any state, local, or tribal governments, or the private sector.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. This rule imposes no regulatory requirements or costs on any state or local governments. Thus, Executive Order 13132 does not apply to this action.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and state and local governments, EPA specifically solicits comment on this proposed action from state and local officials.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175. This rule imposes no regulatory requirements or costs on any tribal government. It does not have

substantial direct effects on tribal governments, the relationship between the federal government and tribes, or on the distribution of power and responsibilities between the federal government and tribes. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks

This action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it is not economically significant as defined in Executive Order 12866, and because the Agency does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children.

I. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use

This proposed rule is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer Advancement Act

This proposed rulemaking does not involve technical standards.

K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority

Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-

income populations in the United States.

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). EPA has previously determined, based on the most current science and EPA's CWA Section 304(a) recommended criteria, that California's adopted and EPA-approved criteria are protective of human health.

List of Subjects in 40 CFR Part 131

Environmental protection, Administrative practice and procedure, Reporting and recordkeeping requirements, Water pollution control.

Dated: November 20, 2017.

E. Scott Pruitt,

Administrator.

For the reasons set out in the preamble title 40, Chapter I, part 131 of the Code of Federal Regulations is proposed to be amended as follows:

PART 131—WATER QUALITY STANDARDS

1. The authority citation for part 131 continues to read as follows:

Authority: 33 U.S.C. 1251 *et seq.*

2. Amend § 131.38, by revising the table in paragraph (b)(1) to read as follows:

§ 131.38 Establishment of numeric criteria for priority toxic pollutants for the State of California.

* * * * *

(b) (1) ***

A		B Freshwater		C Saltwater		D Human Health (10 ⁻⁶ risk for carcinogens) For consumption of:	
# Compound	CAS Number	Criterion Maximum Conc. ^d (µg/L) B1	Criterion Continuous Conc. ^d (µg/L) B2	Criterion Maximum Conc. ^d (µg/L) C1	Criterion Continuous Conc. ^d (µg/L) C2	Water & Organisms (µg/L) D1	Organisms Only (µg/L) D2
1. Antimony	7440360					14 a,s	4300 a,t
2. Arsenic ^b	7440382	340 i,m,w	150 i,m,w	69 i,m	36 i,m		
3. Beryllium	7440417					n	n
4. Cadmium ^b	7440439	4.3 e,i,m,w,x	2.2 e,i,m,w	42 i,m	9.3 i,m	n	n

5a. Chromium (III)	16065831	550 e,i,m,o	180 e,i,m,o			n	n
5b. Chromium (VI) ^b	18540299	16 i,m,w	11 i,m,w	1100 i,m	50 i,m	n	n
6. Copper ^b	7440508	13 e,i,m,w,x	9.0 e,i,m,w	4.8 i,m	3.1 i,m	1300	
7. Lead ^b	7439921	65 e,i,m,z	2.5 e,i,m, z	210 i,m	8.1 i,m	n	n
8. Mercury ^b	7439976	[Reserved]	[Reserved]	[Reserved]	[Reserved]	0.050 a	0.051 a
9. Nickel ^b	7440020	470 e,i,m,w	52 e,i,m,w	74 i,m	8.2 i,m	610 a	4600 a
10. Selenium ^b	7782492	[Reserved] p	5.0 q	290 i,m	71 i,m	n	n
11. Silver ^b	7440224	3.4 e,i,m		1.9 i,m			
12. Thallium	7440280					1.7 a,s	6.3 a,t
13. Zinc ^b	7440666	120 e,i,m,w,x	120 e,i,m,w	90 i,m	81 i,m		
14. Cyanide ^b	57125	22 o	5.2 o	1 r	1 r	700 a	220,000 a,j
15. Asbestos	1332214					7,000,000 fibers/L k,s	
16. 2,3,7,8-TCDD (Dioxin)	1746016					0.0000000 13 c	0.000000014 c
17. Acrolein	107028					320 s	780 t
18. Acrylonitrile	107131					0.059 a,c,s	0.66 a,c,t
19. Benzene	71432					1.2 a,c	71 a,c
20. Bromoform	75252					4.3 a,c	360 a,c
21. Carbon Tetrachloride	56235					0.25 a,c,s	4.4 a,c,t
22. Chlorobenzene	108907					680 a,s	21,000 a,j,t
23. Chlorodibromomethane	124481					0.41 a,c,y	34 a,c
24. Chloroethane	75003						
25. 2-Chloroethylvinyl Ether	110758						
26. Chloroform	67663					[Reserved]	[Reserved]

27. Dichlorobromomethane	75274					0.56 a,c,y	46 a,c
28. 1,1-Dichloroethane	75343						
29. 1,2-Dichloroethane	107062					0.38 a,c,s	99 a,c,t
30. 1,1-Dichloroethylene	75354					0.057 a,c,s	3.2 a,c,t
31. 1,2-Dichloropropane	78875					0.52 a	39 a
32. 1,3-Dichloropropylene	542756					10 a,s	1,700 a,t
33. Ethylbenzene	100414					3,100 a,s	29,000 a,t
34. Methyl Bromide	74839					48 a	4,000 a
35. Methyl Chloride	74873					n	n
36. Methylene Chloride	75092					4.7 a,c	1,600 a,c
37. 1,1,2,2-Tetrachloroethane	79345					0.17 a,c,s	11 a,c,t
38. Tetrachloroethylene	127184					0.8 c,s	8.85 c,t
39. Toluene	108883					6,800 a	200,000 a
40. 1,2-Trans-Dichloroethylene	156605					700 a	140,000 a
41. 1,1,1-Trichloroethane	71556					n	n
42. 1,1,2-Trichloroethane	79005					0.60 a,c,s	42 a,c,t
43. Trichloroethylene	79016					2.7 c,s	81 c,t
44. Vinyl Chloride	75014					2 c,s	525 c,t
45. 2-Chlorophenol	95578					120 a	400 a
46. 2,4-Dichlorophenol	120832					93 a,s	790 a,t
47. 2,4-Dimethylphenol	105679					540 a	2,300 a
48. 2-Methyl-4,6-Dinitrophenol	534521					13.4 s	765 t
49. 2,4-Dinitrophenol	51285					70 a,s	14,000 a,t
50. 2-Nitrophenol	88755						
51. 4-Nitrophenol	100027						
52. 3-Methyl-4-	59507						

Chlorophenol							
53. Pentachlorophenol	87865	19 f,w	15 f,w	13	7.9	0.28 a,c	8.2 a,c,j
54. Phenol	108952					21,000 a	4,600,000 a,j,t
55. 2,4,6-Trichlorophenol	88062					2.1 a,c	6.5 a,c
56. Acenaphthene	83329					1,200 a	2,700 a
57. Acenaphthylene	208968						
58. Anthracene	120127					9,600 a	110,000 a
59. Benzidine	92875					0.00012 a,c,s	0.00054 a,c,t
60. Benzo(a)Anthracene	56553					0.0044 a,c	0.049 a,c
61. Benzo(a)Pyrene	50328					0.0044 a,c	0.049 a,c
62. Benzo(b)Fluoranthene	205992					0.0044 a,c	0.049 a,c
63. Benzo(ghi)Perylene	191242						
64. Benzo(k)Fluoranthene	207089					0.0044 a,c	0.049 a,c
65. Bis(2-Chloroethoxy)Methane	111911						
66. Bis(2-Chloroethyl)Ether	111444					0.031 a,c,s	1.4 a,c,t
67. Bis(2-Chloroisopropyl)Ether	108601					1,400 a	170,000 a,t
68. Bis(2-Ethylhexyl)Phthalate	117817					1.8 a,c,s	5.9 a,c,t
69. 4-Bromophenyl Phenyl Ether	101553						
70. Butylbenzyl Phthalate	85687					3,000 a	5,200 a
71. 2-Chloronaphthalene	91587					1,700 a	4,300 a
72. 4-Chlorophenyl Phenyl Ether	7005723						
73. Chrysene	218019					0.0044 a,c	0.049 a,c
74. Dibenzo(a,h)Anthracene	53703					0.0044 a,c	0.049 a,c
75. 1,2 Dichlorobenzene	95501					2,700 a	17,000 a

76. 1,3 Dichlorobenzene	541731					400	2,600
77. 1,4 Dichlorobenzene	106467					400	2,600
78. 3,3'-Dichlorobenzidine	91941					0.04 a,c,s	0.077 a,c,t
79. Diethyl Phthalate	84662					23,000 a,s	120,000 a,t
80. Dimethyl Phthalate	131113					313,000 s	2,900,000 t
81. Di-n-Butyl Phthalate	84742					2,700 a,s	12,000 a,t
82. 2,4-Dinitrotoluene	121142					0.11 c,s	9.1 c,t
83. 2,6-Dinitrotoluene	606202						
84. Di-n-Octyl Phthalate	117840						
85. 1,2-Diphenylhydrazine	122667					0.040 a,c,s	0.54 a,c,t
86. Fluoranthene	206440					300 a	370 a
87. Fluorene	86737					1,300 a	14,000 a
88. Hexachlorobenzene	118741					0.00075 a,c	0.00077 a,c
89. Hexachlorobutadiene	87683					0.44 a,c,s	50 a,c,t
90. Hexachlorocyclopentadiene	77474					240 a,s	17,000 a,j,t
91. Hexachloroethane	67721					1.9 a,c,s	8.9 a,c,t
92. Indeno(1,2,3-cd) Pyrene	193395					0.0044 a,c	0.049 a,c
93. Isophorone	78591					8.4 c,s	600 c,t
94. Naphthalene	91203						
95. Nitrobenzene	98953					17 a,s	1,900 a,j,t
96. N-Nitrosodimethylamine	62759					0.00069 a,c,s	8.1 a,c,t
97. N-Nitrosodi-n-Propylamine	621647					0.005 a	1.4 a
98. N-Nitrosodiphenylamine	86306					5.0 a,c,s	16 a,c,t
99. Phenanthrene	85018						
100. Pyrene	129000					960 a	11,000 a

101. 1,2,4-Trichlorobenzene	120821						
102. Aldrin	309002	3 g		1.3 g		0.00013 a,c	0.00014 a,c
103. alpha-BHC	319846					0.0039 a,c	0.013 a,c
104. beta-BHC	319857					0.014 a,c	0.046 a,c
105. gamma-BHC	58899	0.95 w		0.16 g		0.019 c	0.063 c
106. delta-BHC	319868						
107. Chlordane	57749	2.4 g	0.0043 g	0.09 g	0.004 g	0.00057 a,c	0.00059 a,c
108. 4,4'-DDT	50293	1.1 g	0.001 g	0.13 g	0.001 g	0.00059 a,c	0.00059 a,c
109. 4,4'-DDE	72559					0.00059 a,c	0.00059 a,c
110. 4,4'-DDD	72548					0.00083 a,c	0.00084 a,c
111. Dieldrin	60571	0.24 w	0.056 w	0.71 g	0.0019 g	0.00014 a,c	0.00014 a,c
112. alpha-Endosulfan	959988	0.22 g	0.056 g	0.034 g	0.0087 g	110 a	240 a
113. beta-Endosulfan	33213659	0.22 g	0.056 g	0.034 g	0.0087 g	110 a	240 a
114. Endosulfan Sulfate	1031078					110 a	240 a
115. Endrin	72208	0.086 w	0.036 w	0.037 g	0.0023 g	0.76 a	0.81 a,j
116. Endrin Aldehyde	7421934					0.76 a	0.81 a,j
117. Heptachlor	76448	0.52 g	0.0038 g	0.053 g	0.0036 g	0.00021 a,c	0.00021 a,c
118. Heptachlor Epoxide	1024573	0.52 g	0.0038 g	0.053 g	0.0036 g	0.00010 a,c	0.00011 a,c
119-125. Polychlorinated biphenyls (PCBs)			0.014 u		0.03 u	0.00017 c,v	0.00017 c,v
126. Toxaphene	8001352	0.73	0.0002	0.21	0.0002	0.00073 a,c	0.00075 a,c
Total Number of Criteria ^h		22	21	22	20	92	90

FOOTNOTES TO TABLE IN PARAGRAPH (b)(1)

a. Criteria revised to reflect the Agency q1* or RfD, as contained in the Integrated Risk Information System (IRIS) as of October 1, 1996. The fish tissue bioconcentration factor (BCF) from the 1980 documents was retained in each case.

b. Criteria apply to California waters except for those waters subject to objectives in Tables III-2A and III-2B of the San Francisco Regional Water Quality Control Board's (SFRWQCB) 1986 Basin Plan that were adopted by the SFRWQCB and the State Water Resources Control Board, approved by EPA, and which continue to apply. For copper and nickel, criteria apply to California waters except for waters south of Dumbarton Bridge in San Francisco Bay that are subject to the objectives in the SFRWQCB's Basin Plan as amended by SFRWQCB Resolution R2-2002-0061, dated May 22, 2002, and approved by the State Water Resources Control Board. EPA approved the aquatic life site-specific objectives on January 21, 2003. The copper and nickel aquatic life site-specific objectives contained in the amended Basin Plan apply instead.

c. Criteria are based on carcinogenicity of 10⁻⁶ risk.

d. Criteria Maximum Concentration (CMC) equals the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects. Criteria Continuous Concentration (CCC) equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. ug/L equals micrograms per liter.

e. Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. The equations are provided in matrix at paragraph (b)(2) of this section. Values displayed above in the matrix correspond to a total hardness of 100 mg/l.

f. Freshwater aquatic life criteria for pentachlorophenol are expressed as a function of pH, and are calculated as follows: Values displayed above in the matrix correspond to a pH of 7.8. $CMC = \exp(1.005(pH) - 4.869)$. $CCC = \exp(1.005(pH) - 5.134)$.

g. This criterion is based on 304(a) aquatic life criterion issued in 1980, and was issued in one of the following documents: Aldrin/Dieldrin (EPA 440/5-80-019), Chlordane (EPA 440/5-80-027), DDT (EPA 440/5-80-038), Endosulfan (EPA 440/5-80-046), Endrin (EPA 440/5-80-047), Heptachlor (440/5-80-052), Hexachlorocyclohexane (EPA 440/5-80-054), Silver (EPA 440/5-80-071). The Minimum Data Requirements and derivation procedures were different in the 1980 Guidelines than in the 1985 Guidelines. For example, a “CMC” derived using the 1980 Guidelines was derived to be used as an instantaneous maximum. If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a CMC derived using the 1985 Guidelines.

h. These totals simply sum the criteria in each column. For aquatic life, there are 23 priority toxic pollutants with some type of freshwater or saltwater, acute or chronic criteria. For human health, there are 92 priority toxic pollutants with either “water + organism” or “organism only” criteria. Note that these totals count chromium as one pollutant even though EPA has developed criteria based on two valence states. In the matrix, EPA has assigned numbers 5a and 5b to the criteria for chromium to reflect the fact that the list of 126 priority pollutants includes only a single listing for chromium.

i. Criteria for these metals are expressed as a function of the water-effect ratio, WER, as defined in paragraph (c) of this section. $CMC = \text{column B1 or C1 value} \times WER$; $CCC = \text{column B2 or C2 value} \times WER$.

j. No criterion for protection of human health from consumption of aquatic organisms (excluding water) was presented in the 1980 criteria document or in the 1986 Quality Criteria for Water. Nevertheless, sufficient information was presented in the 1980 document to allow a calculation of a criterion, even though the results of such a calculation were not shown in the document.

k. The CWA 304(a) criterion for asbestos is the MCL.

l. [Reserved]

m. These freshwater and saltwater criteria for metals are expressed in terms of the dissolved fraction of the metal in the water column. Criterion values were calculated by using EPA's Clean Water Act 304(a) guidance values (described in the total recoverable fraction) and then applying the conversion factors in §131.36(b)(1) and (2).

n. EPA is not promulgating human health criteria for these contaminants. However, permit authorities should address these contaminants in NPDES permit actions using the State's existing narrative criteria for toxics.

o. These criteria were promulgated for specific waters in California in the National Toxics Rule (“NTR”), at §131.36. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays or estuaries and waters of the State defined as inland, i.e., all surface waters of the State

not ocean waters. These waters specifically include the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. This section does not apply instead of the NTR for this criterion.

p. A criterion of 20 ug/l was promulgated for specific waters in California in the NTR and was promulgated in the total recoverable form. The specific waters to which the NTR criterion applies include: Waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of Salt Slough, Mud Slough (north) and the San Joaquin River, Sack Dam to the mouth of the Merced River. This section does not apply instead of the NTR for this criterion. The State of California adopted and EPA approved a site specific criterion for the San Joaquin River, mouth of Merced to Vernalis; therefore, this section does not apply to these waters.

q. This criterion is expressed in the total recoverable form. This criterion was promulgated for specific waters in California in the NTR and was promulgated in the total recoverable form. The specific waters to which the NTR criterion applies include: Waters of the San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of Salt Slough, Mud Slough (north) and the San Joaquin River, Sack Dam to Vernalis. This criterion does not apply instead of the NTR for these waters. This criterion applies to additional waters of the United States in the State of California pursuant to 40 CFR 131.38(c). The State of California adopted and EPA approved a site-specific criterion for the Grassland Water District, San Luis National Wildlife Refuge, and the Los Banos State Wildlife Refuge; therefore, this criterion does not apply to these waters.

r. These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays or estuaries including the Sacramento-San Joaquin Delta within California Regional Water Board 5, but excluding the San Francisco Bay. This section does not apply instead of the NTR for these criteria.

s. These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the Sacramento-San Joaquin Delta and waters of the State defined as inland (i.e., all surface waters of the State not bays or estuaries or ocean) that include a MUN use designation. This section does not apply instead of the NTR for these criteria.

t. These criteria were promulgated for specific waters in California in the NTR. The specific waters to which the NTR criteria apply include: Waters of the State defined as bays and estuaries including San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta; and waters of the State defined as inland (i.e., all surface waters of the State not bays or estuaries or ocean) without a MUN use designation. This section does not apply instead of the NTR for these criteria.

u. PCBs are a class of chemicals which include aroclors 1242, 1254, 1221, 1232, 1248, 1260, and 1016, CAS numbers 53469219, 11097691, 11104282, 11141165, 12672296, 11096825, and 12674112, respectively. The aquatic life criteria apply to the sum of this set of seven aroclors.

v. This criterion applies to total PCBs, e.g., the sum of all congener or isomer or homolog or aroclor analyses.

w. This criterion has been recalculated pursuant to the 1995 Updates: Water Quality Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA-820-B-96-001, September 1996. See also Great Lakes Water Quality Initiative Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA-80-B-95-004, March 1995.

x. The State of California has adopted and EPA has approved site specific criteria for the Sacramento River (and tributaries) above Hamilton City; therefore, these criteria do not apply to these waters.

y. The State of California adopted and EPA approved a site-specific criterion for New Alamo Creek from Old Alamo Creek to Ulati Creek and for Ulati Creek from Alamo Creek to Cache Slough; therefore, this criterion does not apply to these waters.

z. The State of California adopted and EPA approved a site-specific criterion for the Los Angeles River and its tributaries; therefore, this criterion does not apply to these waters.

GENERAL NOTES TO TABLE IN PARAGRAPH (b)(1)

1. The table in this paragraph (b)(1) lists all of EPA's priority toxic pollutants whether or not criteria guidance are available. Blank spaces indicate the absence of national section 304(a) criteria guidance. Because of variations in chemical nomenclature systems, this listing of toxic pollutants does not duplicate the listing in appendix A to 40 CFR Part 423-126 Priority Pollutants. EPA has added the Chemical Abstracts Service (CAS) registry numbers, which provide a unique identification for each chemical.

2. The following chemicals have organoleptic-based criteria recommendations that are not included on this chart: zinc, 3-methyl-4-chlorophenol.

3. Freshwater and saltwater aquatic life criteria apply as specified in paragraph (c)(3) of this section.

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