



Freshwater Benchmarks and Guidelines Used to Evaluate Quality of Wet and Dry Season Discharges.

For Non-Port Areas

Analyte Group	LA Basin Plan			California Toxics Rule		California Fish and Game		UC Davis		EPA OPP	
	Instantaneous Single Sample	Acute Max. Level	30-day Average	Acute CMC	Chronic CCC	Acute CMC	Chronic CCC	Acute CMC	Chronic CCC	Acute CMC	Chronic CCC
Mercury		2			0.051a						
Nickel		100									
Selenium		50		20	5						
Silver											
Thallium		2									
Zinc											
<b>Semivolatile Organic Compounds (ug/L)</b>											
<b>Acids</b>											
2-Chlorophenol											
4-Chloro-3-methylphenol											
2,4-Dichlorophenol											
2,4-Dimethylphenol											
2,4-Dinitrophenol											
2-Nitrophenol											
4-Nitrophenol											
Pentachlorophenol (at pH 7.8)		1		19	15					25	
Phenol											
2,4,6-Trichlorophenol											
<b>Base/Neutral</b>											
Acenaphthene					2700a						
Acenaphthylene											
Anthracene					110,000a						
Benzidine					0.00054a						
1,2 Benzanthracene					0.049a						
Benzo(a)pyrene		0.2									
Benzo(g,h,i)perylene											
3,4 Benzofluoranthene											
Benzo(k)fluoranthene					0.049a						
Bis(2-Chloroethoxy) methane											
Bis(2-Chloroisopropyl) ether					1.4a						
Bis(2-Chloroethyl) ether					170,000a						
Bis(2-Ethylhexyl) phthalate					5.9a						
4-Bromophenyl phenyl ether											
Butyl benzyl phthalate					5,200a						
2-Chloroethyl vinyl ether											
2-Chloronaphthalene					4,300a						
4-Chlorophenyl phenyl ether											
Chrysene					0.049a						
Dibenzo(a,h)anthracene					0.049a						
1,3-Dichlorobenzene					2600c						
1,4-Dichlorobenzene		5			2600c						
1,2-Dichlorobenzene		600			1,700a						
3,3-Dichlorobenzidine					0.077a						
Diethyl phthalate					120,000a						
Dimethyl phthalate					2,900,000c						
di-n-Butyl phthalate					12,000a						
2,4-Dinitrotoluene					9.1a						
2,6-Di nitrotoluene											
4,6 Dinitro-2-methylphenol											
1,2-Diphenylhydrazine					0.54a						
di-n-Octyl phthalate											
Fluoranthene					370a						
Fluorene					14,000a						
Hexachlorobenzene		1			0.00077a						
Hexachlorobutadiene					50a						
Hexachloro-cyclopentadiene		50			17,000a						
Hexachloroethane					8.9a						
Indeno_(1,2,3-cd)pyrene					0.049a						
Isophorone											
Naphthalene											
Nitrobenzene					1,900a						
N-Nitroso-dimethyl amine					8.1a						

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N-Nitroso-diphenyl amine					16a						
N-Nitroso-di-n-propyl amine					1.4a						
Phenanthrene											
Pyrene					11,000a						
1,2,4-Trichlorobenzene		5									
<b>Aroclors (µg/L)</b>											
Aroclor-1016											
Aroclor-1221											
Aroclor-1232											
Aroclor-1242											
Aroclor-1248											
Aroclor-1254											
Aroclor-1260											
PCBs (Total)		0.5			0.014						
<b>Chlorinated Pesticides (µg/L)</b>											
Aldrin				3							
alpha-BHC											
beta-BHC											
delta-BHC											
gamma-BHC (lindane)		0.2		0.95						0.5	54
alpha-chlordane											
gamma-chlordane											
4,4'-DDD											
4,4'-DDE											
4,4'-DDT				1.1	0.001						
Dieldrin				0.24	0.056						
alpha-Endosulfan				0.22	0.056					0.3	0.01
beta-Endosulfan				0.22	0.056					0.3	0.01
Endosulfan sulfate										150	
Endrin		2		0.086	0.036						
Endrin aldehyde											
Heptachlor		0.01		0.52	0.0038						
Heptachlor Epoxide		0.01		0.52	0.0038						
Toxaphene		3		0.73	0.0002						
Methoxychlor		30								0.7	
Mirex									0.001		
Total Chlordane		0.1		2.4	0.0043						
<b>Organophosphates (µg/L)</b>											
Atrazine		1								360	60
Chlorpyrifos						0.02	0.014	0.01	0.01	0.05	0.04
Cyanazine											
Diazinon						0.16	0.1	0.2	0.07	0.105	0.17
Malathion						0.43	0.1	0.17	0.028	0.295	0.035
Prometryn										4850	1000
Simazine		4								500	
<b>Herbicides (ug/L)</b>											
2,4-D		70								12500	
Glyphosate		700								26600	49900
2,4,5-TP-SILVEX		50									
<b>Pyrethroids (ng/L)</b>											
Bifenthrin		3						4	0.6	800	1.3
Cyfluthrin		2						0.3	0.05	12.5	7.4
Cypermethrin								1	0.2	210	69
L-Cyhalothrin								1	0.5	3.5	2
Permethrin								10	2	10.6	1.4
Total Deltamethrin/Tralomethrin											
Total Esfenvalerate/Fenvalerate											
<b>Fipronil (ng/L)</b>											
Fipronil										110	11
Fipronil Desulfinyl										100000	10310
Fipronil Sulfone										360	37

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	Instantaneous Single Sample	Acute Max. Level	30-day Average	Acute CMC	Chronic CCC	Acute CMC	Chronic CCC	Acute CMC	Chronic CCC	Acute CMC	Chronic CCC
Fipronil Sulfide										1065	110

- The one-hour average ammonia-N criterion applicable to storm events is pH dependent. The 30-day ammonia-N criterion applicable to dry weather is both temperature and pH dependent.
- Saltwater bacteria standards
- CTR freshwater dissolved metals are hardness dependent. The values listed here are computed for a hardness of 50 mg/L.  
CTR freshwater dissolved cadmium and lead coefficients for conversion of total recoverable to dissolved criteria are also hardness dependent.

**General**

- Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.
- Criteria continuous concentration (CCC) equals the highest concentration of pollutant to which aquatic life can be exposed for an extended period of time without deleterious effects.
- Criteria maximum concentration (CMC) equals the highest concentration of pollutant to which aquatic life can be exposed for a short period of time with deleterious effects.

**California Toxics Rule**

- CTR freshwater dissolved metals are hardness dependent. The values listed here are computed for a hardness of 50 mg/L.
- CTR freshwater dissolved cadmium and lead conversion coefficients for total to dissolved are also hardness dependent.
- CTR freshwater and saltwater dissolved metal criteria are "CCC" except for silver which are "CMC".
- CTR freshwater and saltwater organics are "CCC" except for aldrin and gamma-BHC which are "CMC".

**LA Basin Plan, 2013**

Bacteria are instantaneous or single sample criteria.

LA Basin Plan contains Title 22 Drinking Water standards

Ammonia listed is Acute 1-hour average objective for waters not designated COLD and/or MIGR and is pH dependent. The value listed is for a pH of 7.5. Chronic criteria are applied to Dry Weather results and are pH and temperature dependent

**California Fish and Game** - Siepman and Finlayson, 2000, Siepman & Slater 1998 (malathion)

All values are "CMC" criteria. CMCs are considered acute criteria.

**UC Davis** - Werner and Oram, 2008, Palumbo, et al. 2012 (for orthophosphates), and Fojut, et al. 2012 (for pyrethroids)

**EPA OPP** - Environmental Protection Agency, Office of Pesticide Programs, Aquatic Life Benchmarks Tables for freshwater invertebrates.

<http://www2.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-pesticide-registration>

a. 30-day average for human health protection-consumption of fish

c Fish consumption



**Saltwater Benchmarks and Guidelines Used to Evaluate Quality of Wet and Dry Season Discharges.  
For Non-Port Areas**

Analyte Group	LA Basin Plan		California Toxics Rule		California Fish and Game		UC Davis		Alternative	
	Instantaneous	30-day	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic
	Single Sample	Geometric Mean	CMC	CCC	CMC	CCC	CMC	CCC	CMC	CCC
Copper										
Iron										
Lead										
Mercury										
Nickel										
Selenium										
Silver										
Thallium										
Zinc										
<b>Semivolatile Organic Compounds (ug/L)</b>										
<b>Acids</b>										
2-Chlorophenol										
4-Chloro-3-methylphenol										
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2-Nitrophenol										
4-Nitrophenol										
Pentachlorophenol			13	7.9						
Phenol										
2,4,6-Trichlorophenol										
<b>Base/Neutral</b>										
Acenaphthene				2700a						
Acenaphthylene										
Anthracene				110,000a						
Benzidine				0.00054a,b						
1,2 Benzanthracene				0.049a,b						
Benzo(a)pyrene										
Benzo(g,h,i)perylene										
3,4 Benzofluoranthene										
Benzo(k)fluoranthene				0.049a,b						
Bis(2-Chloroethoxy) methane										
Bis(2-Chloroisopropyl) ether				1.4a,b						
Bis(2-Chloroethyl) ether				170,000a						
Bis(2-Ethylhexyl) phthalate				5.9a,b						
4-Bromophenyl phenylether										
Butyl benzyl phthalate				5,200a						
2-Chloroethyl vinylether										
2-Chloronaphthalene				4,300a						
4-Chlorophenyl phenylether										
Chrysene				0.049a,b						
Dibenzo(a,h)anthracene				0.049a,b						
1,3-Dichlorobenzene				2600c						
1,4-Dichlorobenzene				2600c						
1,2-Dichlorobenzene				1,700a						
3,3-Dichlorobenzidine				0.077a,b						
Diethyl phthalate				120,000a,b						
Dimethyl phthalate				2,900,000c						
di-n-Butyl phthalate				12,000a						
2,4-Dinitrotoluene				9.1a						
2,6-Dinitrotoluene										
4,6 Dinitro-2-methylphenol										
1,2-Diphenylhydrazine				0.54a,b						
di-n-Octyl phthalate										
Fluoranthene				370a						
Fluorene				14,000a						
Hexachlorobenzene				0.00077a,b						
Hexachlorobutadiene				50a,b						
Hexachloro-cyclopentadiene				17,000a,b						
Hexachloroethane				8.9a,b						
Indeno_(1,2,3-cd)pyrene				0.049a,b						



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	Instantaneous	30-day	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic
	Single Sample	Geometric Mean	CMC	CCC	CMC	CCC	CMC	CCC	CMC	CCC
Fipronil Desulfinyl										
Fipronil Sulfone										
Fipronil Sulfide										

**General**

- Criteria continuous concentration (CCC) equals the highest concentration of pollutant to which aquatic life can be exposed for an extended period of time without deleterious effects.
- Criteria maximum concentration (CMC) equals the highest concentration of pollutant to which aquatic life can be exposed for a short period of time with deleterious effects.

**California Toxics Rule**

- CTR freshwater and saltwater dissolved metal criteria are except for silver which are .
- CTR freshwater and saltwater organics are except for aldrin and gamma-BHC which are .

**California Fish and Game** - Siepmann and Finlayson, 2000, Siepmann & Slater 1998 (malathion)

All values are criteria. CMCs are considered acute criteria.

**UC Davis** - Werner and Oram, 2008.

**EPA OPP** - Environmental Protection Agency, Office of Pesticide Programs, <http://www2.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-pesticide-registration>

- 30-day average for human health protection-consumption of fish
- Criteria are cited in the CTR and derived from the NTR. Values apply to Bays and Estuaries of California.
- Fish consumption

## Sediment Assessment Thresholds for the Inner and Outer Long Beach Harbor, and Eastern San Pedro Bay

Group	Constituent/Parameter	Source of Numeric Threshold	ERM	Units
Conventional Parameters (g)	Net dry weight	--	--	--
	Net wet weight	--	--	--
Conventional Parameters (pct)	Total organic carbon	--	--	--
	Total solids	--	--	--
Metals (mg/kg)	Aluminum	--	--	--
	Antimony	--	--	--
	Arsenic	Long et al. (1995)	70	mg/kg
	Barium	--	--	--
	Beryllium	--	--	--
	Cadmium	Long et al. (1995)	9.6	mg/kg
	Chromium	Long et al. (1995)	370	mg/kg
	Cobalt	--	--	--
	Copper	Long et al. (1995)	270	mg/kg
	Iron	--	--	--
	Lead	Long et al. (1995)	218	mg/kg
	Manganese	--	--	--
	Mercury	Long et al. (1995)	0.71	mg/kg
	Molybdenum	--	--	--
	Nickel	Long et al. (1995)	51.6	mg/kg
	Selenium	--	--	--
	Silver	Long et al. (1995)	3.7	mg/kg
	Strontium	--	--	--
	Thallium	--	--	--
	Tin	--	--	--
Titanium	--	--	--	
Vanadium	--	--	--	
Zinc	Long et al. (1995)	410	ug/kg	
Volatile Organics (ug/kg)	p,p'-DDMU	--	--	--
Semivolatile Organics (ug/kg)	1-Methylnaphthalene	--	--	--
	1-Methylphenanthrene	--	--	--
	2,3,5-Trimethylnaphthalene (1,6,7)	--	--	--
	2,6-Dimethylnaphthalene	--	--	--
	Biphenyl (1,1'-Biphenyl)	--	--	--
Polycyclic Aromatic Hydrocarbons	1-Methylnaphthalene	--	--	--
	2-Methylnaphthalene	Long et al. (1995)	670	ug/kg
	Acenaphthene	Long et al. (1995)	500	ug/kg
	Acenaphthylene	Long et al. (1995)	640	ug/kg
	Anthracene	Long et al. (1995)	1100	ug/kg
	Benzo(a)anthracene	Long et al. (1995)	1600	ug/kg
	Benzo(a)pyrene	Long et al. (1995)	1600	ug/kg
	Benzo(b)fluoranthene	--	--	--
	Benzo(e)pyrene	--	--	--
	Benzo(g,h,i)perylene	--	--	--
	Benzo(k)fluoranthene	--	--	--
	Biphenyl (1,1'-Biphenyl)	--	--	--
	Chrysene	Long et al. (1995)	2800	ug/kg

Sediment Assessment Thresholds for the Inner and Outer Long Beach Harbor, and Eastern San Pedro Bay

Hydrocarbons (ug/kg)	Dibenzo(a,h)anthracene	Long et al. (1995)	260	ug/kg
	Dibenzothiophene	--	--	--
	Fluoranthene	Long et al. (1995)	5100	ug/kg
	Fluorene	Long et al. (1995)	540	ug/kg
	Hexachlorobenzene	--	--	--
	Indeno(1,2,3-c,d)pyrene	--	--	--
	Naphthalene	Long et al. (1995)	2100	ug/kg
	Perylene	--	--	--
	Phenanthrene	Long et al. (1995)	1500	ug/kg
	Pyrene	Long et al. (1995)	2600	ug/kg
	Total HPAH (9 of 17) (U = 0)	Long et al. (1995)	9600	ug/kg
	Total LPAH (8 of 17) (U = 0)	Long et al. (1995)	3160	ug/kg
	Total PAH (17) (U = 0)	Long et al. (1995)	44792	ug/kg
	Pesticides (ug/kg)	2,4'-DDD (o,p'-DDD)	--	--
2,4'-DDE (o,p'-DDE)		--	--	--
2,4'-DDT (o,p'-DDT)		--	--	--
4,4'-DDD (p,p'-DDD)		--	--	--
4,4'-DDE (p,p'-DDE)		Long et al. (1995)	27	ug/kg
4,4'-DDT (p,p'-DDT)		--	--	--
Total DDx (U = 0)		Long et al. (1995)	46.1	ug/kg
Aldrin		--	--	--
Chlordane, alpha- (Chlordane, cis-		--	--	--
Chlordane, gamma-		--	--	--
Dacthal		--	--	--
Dicofol		--	--	--
Dieldrin		Long et al. (1995)	8	ug/kg
Endosulfan sulfate		--	--	--
Endosulfan, alpha- (I)		--	--	--
Endosulfan, beta (II)		--	--	--
Endrin		--	--	--
Endrin aldehyde		--	--	--
Endrin ketone		--	--	--
Heptachlor		--	--	--
Heptachlor epoxide		--	--	--
Hexachlorocyclohexane (BHC), alp		--	--	--
Hexachlorocyclohexane (BHC), bet		--	--	--
Hexachlorocyclohexane (BHC), del		--	--	--
Hexachlorocyclohexane (BHC), gar		--	--	--
Methoxychlor		--	--	--
Mirex		--	--	--
Nonachlor, cis-		--	--	--
Nonachlor, trans-		--	--	--
Oxychlordane		--	--	--
Perthane		--	--	--
Total DDx (U = 0)		Long et al. (1995)	46.1	ug/kg
Toxaphene		--	--	--
PCB-003	--	--	--	

Sediment Assessment Thresholds for the Inner and Outer Long Beach Harbor, and Eastern San Pedro Bay

PCB Congeners  
(ng/kg)

PCB-005	--	--	--
PCB-008	--	--	--
PCB-015	--	--	--
PCB-018	--	--	--
PCB-027	--	--	--
PCB-028	--	--	--
PCB-029	--	--	--
PCB-031	--	--	--
PCB-033	--	--	--
PCB-037	--	--	--
PCB-044	--	--	--
PCB-049	--	--	--
PCB-052	--	--	--
PCB-056/060	--	--	--
PCB-066	--	--	--
PCB-070	--	--	--
PCB-074	--	--	--
PCB-077	--	--	--
PCB-081	--	--	--
PCB-087	--	--	--
PCB-095	--	--	--
PCB-097	--	--	--
PCB-099	--	--	--
PCB-101	--	--	--
PCB-105	--	--	--
PCB-110	--	--	--
PCB-114	--	--	--
PCB-118	--	--	--
PCB-119	--	--	--
PCB-123	--	--	--
PCB-126	--	--	--
PCB-128	--	--	--
PCB-132/168	--	--	--
PCB-137	--	--	--
PCB-138	--	--	--
PCB-141	--	--	--
PCB-149	--	--	--
PCB-151	--	--	--
PCB-153	--	--	--
PCB-153/168	--	--	--
PCB-156	--	--	--
PCB-157	--	--	--
PCB-158	--	--	--
PCB-167	--	--	--
PCB-168	--	--	--
PCB-169	--	--	--
PCB-170	--	--	--

Sediment Assessment Thresholds for the Inner and Outer Long Beach Harbor, and Eastern San Pedro Bay

PCB-174	--	--	--
PCB-177	--	--	--
PCB-180	--	--	--
PCB-183	--	--	--
PCB-187	--	--	--
PCB-189	--	--	--
PCB-194	--	--	--
PCB-195	--	--	--
PCB-199	--	--	--
PCB-200	--	--	--
PCB-201	--	--	--
PCB-203	--	--	--
PCB-206	--	--	--
PCB-209	--	--	--
Total PCB Congener (U = 0)	--	--	--

Long, E.R., D.D. MacDonald, S.L. Smith, and F.D. Calder, 1995. Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments. *Environmental Management* 19:81-97.

Fish Tissue Assessment Thresholds For the Inner and Outer Long Beach Harbor, and Easter San Pedro Bay

Group	Constituent/Parameter	Source of Numeric Threshold	Numeric Threshold	Units
Conventional Parameters (pct)	Lipids	--	--	--
Pesticides (ug/kg)	2,4'-DDD (o,p'-DDD)	--	--	--
	2,4'-DDE (o,p'-DDE)	--	--	--
	2,4'-DDT (o,p'-DDT)	--	--	--
	4,4'-DDD (p,p'-DDD)	--	--	--
	4,4'-DDE (p,p'-DDE)	--	--	--
	4,4'-DDT (p,p'-DDT)	--	--	--
	Total DDx (U = 0)	OEHHA FCG	21	(ug/kg)
PCB Congeners (ug/kg)	PCB-003	--	--	--
	PCB-008	--	--	--
	PCB-018	--	--	--
	PCB-028	--	--	--
	PCB-031	--	--	--
	PCB-033	--	--	--
	PCB-037	--	--	--
	PCB-044	--	--	--
	PCB-049	--	--	--
	PCB-052	--	--	--
	PCB-056/060	--	--	--
	PCB-066	--	--	--
	PCB-070	--	--	--
	PCB-074	--	--	--
	PCB-077	--	--	--
	PCB-081	--	--	--
	PCB-087	--	--	--
	PCB-095	--	--	--
	PCB-097	--	--	--
	PCB-099	--	--	--
	PCB-101	--	--	--
	PCB-105	--	--	--
	PCB-110	--	--	--
	PCB-114	--	--	--
	PCB-118	--	--	--
	PCB-119	--	--	--
	PCB-123	--	--	--
	PCB-126	--	--	--
PCB-128	--	--	--	
PCB-132/168	--	--	--	
PCB-138	--	--	--	
PCB-141	--	--	--	
PCB-149	--	--	--	
PCB-151	--	--	--	
PCB-153	--	--	--	
PCB-156	--	--	--	

Fish Tissue Assessment Thresholds For the Inner and Outer Long Beach Harbor, and Easter San Pedro Bay

PCB-157	--	--	--
PCB-158	--	--	--
PCB-167	--	--	--
PCB-169	--	--	--
PCB-170	--	--	--
PCB-174	--	--	--
PCB-177	--	--	--
PCB-180	--	--	--
PCB-183	--	--	--
PCB-187	--	--	--
PCB-189	--	--	--
PCB-194	--	--	--
PCB-195	--	--	--
PCB-199/200	--	--	--
PCB-201	--	--	--
PCB-206	--	--	--
PCB-209	--	--	--
Total PCB Congener (U = 0)	OEHHA FCG	3.6	(ug/kg)

OEHHA 2008

<http://oehha.ca.gov/fish/gtlsv/pdf/FCGsATLs27June2008.pdf>

Group	Constituent / Parameter	Source of Numeric Threshold	Numeric Threshold	Units	Included also in TMDL or Basin Plan
Conventional	Ammonia	USEPA National Recomm. WQ Criteria, 4-day avg, as N (k)	100	ug/L	
	Chlorine	Los Angeles Basin Plan	0.1	mg/l	Basin Plan
	Cyanide	National Toxics Rule (USEPA), 4-day average, total	1	ug/L	
	Dissolved oxygen	Los Angeles Basin Plan - Annual Mean only for Long Beach Outer	6	mg/l	Basin Plan
	Dissolved oxygen	Los Angeles Basin Plan - Annual Mean for all water	7	mg/l	Basin Plan
	Dissolved oxygen	Los Angeles Basin Plan - Single Max for all water	5	mg/l	Basin Plan
	pH - maximum	USEPA National Recomm. WQ Criteria, instantaneous	8.5	units	Basin Plan
	pH - minimum	USEPA National Recomm. WQ Criteria, instantaneous	6.5	units	Basin Plan
	Turbidity at natural > 50 NTU	Los Angeles Basin Plan	10	≤ 10% increa	Basin Plan
	Turbidity at natural 0 - 50 NTU	Los Angeles Basin Plan	20	≤ 20% increa	Basin Plan
Dioxin	California Toxics Rule (USEPA) for other waters	0.000000014	ug/L		
Metal	Antimony	California Toxics Rule (USEPA) for other waters	4,300	ug/L	
	Arsenic	California Toxics Rule (USEPA), 4-day average (dissolved)	36	ug/L	
	Cadmium, dissolved	California Toxics Rule (USEPA), 4-day average, dissolved	9.3	ug/L	
	Chromium (III)	USEPA National Recomm. WQ Criteria, acute tox info / 10	1,030	ug/L	
	Chromium (VI), dissolved	California Toxics Rule (USEPA), 4-day average (dissolved)	50	ug/L	
	Copper, dissolved	California Toxics Rule (USEPA), 4-day average, dissolved & TMDL	3.1	ug/L	TMDL
	Lead acetate	California Toxics Rule (USEPA), 4-day average, for Lead	8.1	ug/L	
	Lead subacetate	California Toxics Rule (USEPA), 4-day average, for Lead	8.1	ug/L	
	Lead, dissolved	California Toxics Rule (USEPA), 4-day average, dissolved & TMDL	8.1	ug/L	TMDL
	Manganese	USEPA National Recomm. WQ Criteria, fish consumption	100	ug/L	
	Mercury	California Toxics Rule (USEPA) for other waters & TMDL	0.051	ug/L	TMDL
	Nickel, dissolved	California Toxics Rule (USEPA), 4-day average, dissolved	8	ug/L	
	Selenium, dissolved	California Toxics Rule (USEPA), 4-day average, dissolved	71	ug/L	
	Silver, dissolved	California Toxics Rule (USEPA), 1-hour average, dissolved	1.9	ug/L	
	Tetraethyl lead	California Toxics Rule (USEPA), 4-day average, for Lead	8.1	ug/L	
	Thallium	National Toxics Rule (USEPA) for other waters	6.3	ug/L	
	Zinc, dissolved	USEPA National Recomm. WQ Criteria, 4-day avg, dissolved & T	81	ug/L	TMDL
PAH	Acenaphthene	USEPA National Recomm. WQ Criteria, toxicity to algae	500	ug/L	
	Acenaphthylene	USEPA National Recomm. WQ Criteria, acute tox info / 10	30	ug/L	
	Anthracene	USEPA National Recomm. WQ Criteria, acute tox info / 10	30	ug/L	
	Benz(a)anthracene	California Toxics Rule (USEPA) for other waters	0.049	ug/L	
	Benzo(a)pyrene	California Toxics Rule (USEPA) for other waters & TMDL	0.049	ug/L	TMDL
	Benzo(b)fluoranthene	California Toxics Rule (USEPA) for other waters	0.049	ug/L	
	Benzo(k)fluoranthene	California Toxics Rule (USEPA) for other waters	0.049	ug/L	
	Chrysene	California Toxics Rule (USEPA) for other waters & TMDL	0.049	ug/L	TMDL
	Dibenz(a,h)anthracene	California Toxics Rule (USEPA) for other waters	0.049	ug/L	
	Fluoranthene	USEPA National Recomm. WQ Criteria, chronic tox info	16	ug/L	
	Fluorene	USEPA National Recomm. WQ Criteria, acute tox info / 10	30	ug/L	
	Indeno(1,2,3-c,d)pyrene	California Toxics Rule (USEPA) for other waters	0.049	ug/L	
	Naphthalene	USEPA National Recomm. WQ Criteria, acute tox info / 10	235	ug/L	
	Pyrene	Human Health Protection Objective, fish consumption (n)	0.0088	ug/L	
	Pathogen	Enterococcus Geometric mean	Los Angeles Basin Plan	35	100ml
Enterococcus Single sample		Los Angeles Basin Plan	104	100ml	Basin Plan
Fecal coliform Geometric mean		Los Angeles Basin Plan	200	100ml	Basin Plan
Fecal coliform Single sample		Los Angeles Basin Plan	400	100ml	Basin Plan
Total coliform Geometric mean		Los Angeles Basin Plan	1000	100ml	Basin Plan
Total coliform Single sample		Los Angeles Basin Plan	10,000	100ml	Basin Plan
Total coliform Single sample if the rat		Los Angeles Basin Plan	1000	100ml	Basin Plan
PCB	Polychlorinated biphenyls (total PCB)	California Toxics Rule (USEPA) for other waters; 30 day average f	0.00017	ug/L	TMDL
Pesticide	Aldrin	California Toxics Rule (USEPA) for other waters	0.00014	ug/L	
	alpha-BHC	California Toxics Rule (USEPA) for other waters	0.013	ug/L	
	Atrazine	USEPA draft National Recomm. WQ Criteria, 30-day average	17	ug/L	
	beta-BHC	California Toxics Rule (USEPA) for other waters	0.046	ug/L	
	Chlordane	National Toxics Rule (USEPA), 4-day average, total & TMDL	0.004	ug/L	TMDL
	Chlorpyrifos	California Dept of Fish & Game WQ Criteria, 4-day average	0.009	ug/L	
	DDD	California Toxics Rule (USEPA) for other waters	0.00084	ug/L	
	DDE	California Toxics Rule (USEPA) for other waters	0.00059	ug/L	
	DDT	California Toxics Rule (USEPA) for other waters & TMDL	0.00059	ug/L	
	Diazinon	USEPA National Recomm. WQ Criteria, 4-day average, draft	0.82	ug/L	
	Dieldrin	California Toxics Rule (USEPA) for other waters & TMDL	0.00014	ug/L	TMDL
	Endosulfan	National Toxics Rule (USEPA), 4-day average, total	0.0087	ug/L	
	Endrin	National Toxics Rule (USEPA), 4-day average, total	0.0023	ug/L	
	gamma-BHC	California Toxics Rule (USEPA) for other waters	0.063	ug/L	
	Heptachlor	California Toxics Rule (USEPA) for other waters	0.00021	ug/L	
	Methoxychlor	USEPA National Recomm. WQ Criteria, instantaneous max	0.03	ug/L	
	technical-BHC	USEPA National Recomm. WQ Criteria, acute tox info / 10	0.034	ug/L	
Toxaphene	California Toxics Rule (USEPA), 4-day average, total	0.0002	ug/L		
SVOC	Di(2-ethylhexyl)phthalate; Bis(2-eth	National Toxics Rule (USEPA) for other waters	5.9	ug/L	
	N-Nitrosodimethylamine	National Toxics Rule (USEPA) for other waters	8.1	ug/L	
	Pentachlorophenol	California Toxics Rule (USEPA), 4-day average	7.9	ug/L	
Toxicity	Toxicity Acute - average of 3 consec	Los Angeles Basin Plan	90	≥ 90 % surviv	Basin Plan
	Toxicity Acute - single sample surviv	Los Angeles Basin Plan	70	≥ 70% surviv	Basin Plan
	Toxicity Chronic	Los Angeles Basin Plan	no chronic toxi	no chronic to	Basin Plan
VOC	1,1,1-Trichloroethane	USEPA Naional Recomm. WQ Criteria, acute tox info / 10	3,120	ug/L	
	1,1,2,2-Tetrachloroethane	National Toxics Rule (USEPA) for other waters	11	ug/L	
	1,1,2-Trichloroethane	National Toxics Rule (USEPA) for other waters	42	ug/L	
	1,1-Dichloroethylene	National Toxics Rule (USEPA) for other waters	3.2	ug/L	
	1,2,4-Trichlorobenzene	USEPA National Recomm. WQ Criteria, fish consumption	70	ug/L	
	1,2-Dichlorobenzene	USEPA National Recomm. WQ Criteria, chronic tox info	129	ug/L	
	1,2-Dichloroethane	National Toxics Rule (USEPA) for other waters	99	ug/L	
	1,2-Dichloropropane	California Toxics Rule (USEPA) for other waters	39	ug/L	
	1,3-Dichlorobenzene	USEPA National Recomm. WQ Criteria, chronic tox info	129	ug/L	
	1,3-Dichloropropene	USEPA National Recomm. WQ Criteria, acute tox info / 10	79	ug/L	
1,4-Dichlorobenzene	USEPA National Recomm. WQ Criteria, chronic tox info	129	ug/L		

Group	Constituent / Parameter	Source of Numeric Threshold	Numeric Threshold	Units	Included also in TMDL or Basin Plan
	Acrolein	USEPA National Recomm. WQ Criteria, acute tox info / 10	5.5	ug/L	
	Benzene	California Toxics Rule (USEPA) for other waters	71	ug/L	
	Bromodichloromethane	California Toxics Rule (USEPA) for other waters	46	ug/L	
	Bromoform	California Toxics Rule (USEPA) for other waters	360	ug/L	
	Carbaryl	California Dept of Fish & Game WQ Criteria, 4-day average	0.81	ug/L	
	Carbon tetrachloride	National Toxics Rule (USEPA) for other waters	4.4	ug/L	
	Chlorobenzene	USEPA National Recomm. WQ Criteria, chronic tox info	129	ug/L	
	Chloroform	USEPA National Recomm. WQ Criteria, fish consumption	470	ug/L	
	Chloromethane	USEPA National Recomm. WQ Criteria, chronic tox info	6,400	ug/L	
	cis-1,2-Dichloroethylene	USEPA National Recomm. WQ Criteria, acute tox info / 10	22,400	ug/L	
	Dibromochloromethane	California Toxics Rule (USEPA) for other waters	34	ug/L	
	Dichlorodifluoromethane	USEPA National Recomm. WQ Criteria, chronic tox info	6,400	ug/L	
	Dichloromethane	California Toxics Rule (USEPA) for other waters	1,600	ug/L	
	Ethylbenzene	USEPA National Recomm. WQ Criteria, acute tox info / 10	43	ug/L	
	Methyl t-butyl ether	USEPA National Recomm. WQ Criteria, 4-day average	18,000	ug/L	
	Tetrachloroethylene	National Toxics Rule (USEPA) for other waters	8.85	ug/L	
	Toluene	USEPA Naional Recomm. WQ Criteria, chronic tox info	5,000	ug/L	
	trans-1,2-Dichloroethylene	California Toxics Rule (USEPA) for other waters	140,000	ug/L	
	Trichloroethylene	National Toxics Rule (USEPA) for other waters	81	ug/L	
	Trichlorofluoromethane	USEPA Naional Recomm. WQ Criteria, chronic tox info	6,400	ug/L	
	Vinyl choride	National Toxics Rule (USEPA) for other waters	525	ug/L	