

Table 4-3. Comparison of 1994-2000 Mass Emissions Results with Standards

Class Constituent	Data Included Since ^h	DL	Units	Guidelines and Standards					Mass Emission					
				Ocean Plan ^g	Basin Plan ^g	AB 411	California Toxics Rule (freshwater) ^d	California Toxics Rule (saltwater) ^d	No. of Samples	No. of Non-detects	Percent Detects	Mean	Median	CV
Miscellaneous Constituents														
Cyanide	96	0.01	mg/l	0.004 ^a	0.2		0.0052	0.001	128	110	14	S.I.D.	S.I.D.	S.I.D.
TPH	94	1	mg/l						163	89	45	1.6	0.5	1.06
Oil and Grease	94	1	mg/l	25 ^b					160	83	48	2.2	0.5	2.04
Total Phenols	94	0.1	mg/l						160	157	2	S.I.D.	S.I.D.	S.I.D.
Indicator Bacteria														
Total Coliform	94	20	MPN/100ml	1000 ^b	70	10,000 (Instantaneous)			163	5	97	1,596,086	300,000	2.27
Fecal Coliform	94	20	MPN/100ml	200 ^b	200	400 (Instantaneous)			163	3	98	962,419	50,000	3.38
Ratio Fecal Coliform/Total Coliform	94					10% (Instantaneous) if Total Coliform is between 1000 & 10,000			6	0	100	35%	28%	1.03
Fecal Streptococcus	94	20	MPN/100ml						163	5	97	524,640	160,000	2.98
Fecal Enterococcus	94	20	MPN/100ml	24 ^b			104		99	2	98	252,551	30,000	1.91
General Minerals														
Ammonia	94	0.1	mg/l	2.4 ^a	6.8				188	64	66	0.7	0.3	1.57
Calcium	96	1.0	mg/l						164	0	100	44	31	0.82
Magnesium	96	1.0	mg/l						164	0	100	17.5	7.8	1.29
Potassium	94	1.0	mg/l						191	0	100	4.4	4.2	0.44
Sodium	96	1.0	mg/l						175	0	100	42	29	0.98
Bicarbonate	94	2.0	mg/l						184	0	100	88	71	0.68
Carbonate	94	2.0	mg/l						184	182	1	S.I.D.	S.I.D.	S.I.D.
Chloride	94	2.0	mg/l						185	1	99	42	29	0.92
Fluoride	94	0.1	mg/l		2.4				185	40	78	0.2	0.2	0.68
Nitrate	94	0.1	mg/l						185	3	98	7.2	5.6	0.86
Sulfate	94	0.1	mg/l						185	1	99	103	48	1.33
Alkalinity	94	4.0	mg/l						184	0	100	84	66	0.68
Hardness	96	2.0	mg/l						164	0	100	179	110	1.01
COD	97	5	mg/l						159	7	96	74	55	0.96
pH	94	0-14			<6.5 & >8.5				184	0	100	7.4	7.4	0.06
Specific Conductance	94	1.0	umhos/cm						180	0	100	569	365	0.94
Total Dissolved Solids	96	2.0	mg/l		250				164	0	100	362	219	0.96
Turbidity	94	0.1	NTU	75 ^b					183	0	100	109	64	1.44
Total Suspended Solids	96	2.0	mg/l						166	0	100	255	160	1.24
Volatile Suspended Solids	94	1.0	mg/l/hr						183	1	99	51	41	0.99
MBAS	97	0.05	mg/l		0.5				153	86	44	0.08	0.03	1.43
Total Organic Carbon	94	1.0	mg/l						184	0	100	10	8	0.73
BOD	94	2.0	mg/l						173	6	97	25	18	1.27
Nutrients														
Dissolved Phosphorus	94	0.05	mg/l						182	5	97	0.3	0.3	0.67
Total Phosphorus	94	0.05	mg/l						182	1	99	0.5	0.4	0.70
NH3-N	94	0.1	mg/l	2.4 ^a	2.7				185	72	61	0.6	0.2	1.57
Nitrate-N	96	0.1	mg/l			10 and also must not exceed 5 when added to Nitrite-N			166	5	97	1.5	1.2	0.90
Nitrite-N	94	0.1	mg/l			1 and also must not exceed 5 when added to Nitrate-N			186	35	81	0.19	0.09	1.32
TKN	96	0.1	mg/l						173	1	99	3.1	2.3	0.79
Metals														
Dissolved Aluminum	96	100	µg/l						175	97	45	567	50	2.29
Total Aluminum	96	100	µg/l		1000				175	19	89	2009	325	2.99

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				Dissolved Antimony	97	5	µg/l						159	157
Total Antimony	97	5	µg/l	1200 ^b	6				159	156	2	S.I.D.	S.I.D.	S.I.D.
Dissolved Arsenic	97	5	µg/l				150	36	159	157	1	S.I.D.	S.I.D.	S.I.D.
Total Arsenic	97	5	µg/l	32 ^a	50				159	147	8	S.I.D.	S.I.D.	S.I.D.
Dissolved Barium	97	10	µg/l						159	14	91	46	42	0.65
Total Barium	97	10	µg/l		1000				159	12	92	75	51	1.29
Dissolved Beryllium	97	1	µg/l						156	156	0	S.I.D.	S.I.D.	S.I.D.
Total Beryllium	97	1	µg/l	0.033 ^b	4				159	159	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Boron	97	100	µg/l						159	27	83	209	185	0.60
Total Boron	97	100	µg/l		1000				159	17	89	271	257	0.56
Dissolved Cadmium	97	1	µg/l				2.2	9.3	159	142	11	S.I.D.	S.I.D.	S.I.D.
Total Cadmium	97	1	µg/l	4 ^a	5				159	131	18	S.I.D.	S.I.D.	S.I.D.
Dissolved Chromium	97	5	µg/l				180		159	146	8	S.I.D.	S.I.D.	S.I.D.
Total Chromium	97	5	µg/l	190 ^b	50				159	113	29	8.1	2.5	2.03
Dissolved Chromium +6	94	10	µg/l				11	50	175	175	0	S.I.D.	S.I.D.	S.I.D.
Total Chromium +6	94	10	µg/l	8 ^a					175	175	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Copper	97	5	µg/l				9	3.1	159	67	58	13.0	5.8	2.23
Total Copper	97	5	µg/l	12 ^a					159	4	97	23.1	12	1.94
Dissolved Iron	94	100	µg/l						193	89	54	756	120	2.70
Total Iron	94	100	µg/l						193	17	91	4280	670	2.60
Dissolved Lead	97	5	µg/l				2.5	8.1	159	135	15	S.I.D.	S.I.D.	S.I.D.
Total Lead	97	5	µg/l	8 ^a					159	102	36	25	2.5	4.48
Dissolved Manganese	98	100	µg/l						112	112	0	S.I.D.	S.I.D.	S.I.D.
Total Manganese	98	100	µg/l						112	94	16	S.I.D.	S.I.D.	S.I.D.
Dissolved Mercury	94	1	µg/l						191	191	0	S.I.D.	S.I.D.	S.I.D.
Total Mercury	94	1	µg/l	0.16 ^a	2				191	187	2	S.I.D.	S.I.D.	S.I.D.
Dissolved Nickel	97	5	µg/l				52	8.2	159	120	25	5.2	2.5	1.56
Nickel	97	5	µg/l		100				159	80	50	9.3	2.5	1.74
Dissolved Selenium	94	5	µg/l				5 ^a	71	193	193	0	S.I.D.	S.I.D.	S.I.D.
Total Selenium	94	5	µg/l	60 ^a	50				193	179	7	S.I.D.	S.I.D.	S.I.D.
Dissolved Silver	97	1	µg/l				3.4 ^f	1.9 ^f	159	158	1	S.I.D.	S.I.D.	S.I.D.
Total Silver	97	1	µg/l	2.8 ^a					159	153	4	S.I.D.	S.I.D.	S.I.D.
Dissolved Thallium	97	5	µg/l						159	159	0	S.I.D.	S.I.D.	S.I.D.
Total Thallium	97	5	µg/l	14 ^b	2				159	159	0	S.I.D.	S.I.D.	S.I.D.
Dissolved Zinc	94	50	µg/l				120	81	193	145	25	73	25	2.43
Total Zinc	94	50	µg/l	80 ^a					193	73	62	127	64	1.83
SVOCs														
Bis(2-ethylhexyl)phthalate	99	1	µg/l	3.5 ^b					10	5	50	4	0.9	1.45
PAHs				0.0088 ^c										
Acenaphthene	99	0.05	µg/l						10	9	10	S.I.D.	S.I.D.	S.I.D.
Acenaphthylene	99	0.05	µg/l						10	9	10	S.I.D.	S.I.D.	S.I.D.
Anthracene	99	0.05	µg/l						10	10	0	S.I.D.	S.I.D.	S.I.D.
Benzo(a)anthracene	99	0.1	µg/l		2				10	10	0	S.I.D.	S.I.D.	S.I.D.
Benzo(a)pyrene	99	0.1	µg/l						10	10	0	S.I.D.	S.I.D.	S.I.D.
Benzo(b)fluoranthene	99	0.1	µg/l						10	9	10	S.I.D.	S.I.D.	S.I.D.
Benzo(k)fluoranthene	99	0.1	µg/l						10	10	0	S.I.D.	S.I.D.	S.I.D.
Chrysene	99	0.1	µg/l						10	9	10	S.I.D.	S.I.D.	S.I.D.
Dibenz(a,h)anthracene	99	0.1	µg/l						10	10	0	S.I.D.	S.I.D.	S.I.D.
Fluoranthene	99	0.1	µg/l	15 ^b					10	7	30	0.071	0.050	0.49
Fluorene	99	0.1	µg/l						10	10	0	S.I.D.	S.I.D.	S.I.D.
Indeno (1,2,3-cd)pyrene	99	0.1	µg/l						10	10	0	S.I.D.	S.I.D.	S.I.D.
Naphthalene	99	0.05	µg/l						10	9	10	S.I.D.	S.I.D.	S.I.D.
Phenanthrene	99	0.05	µg/l						10	8	20	0.039	0.025	0.93

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Pyrene	99	0.05	µg/l						10	6	40	0.126	0.025	1.64
All other SVOCs	94	0.05-5.0	µg/l						103	103	0	S.I.D.	S.I.D.	S.I.D.
Pesticides														
Organochlorine Pesticides & PCBs	94	0.05-1.0	µg/l	0.000019 ^b	0.00007		0.014	0.03	93	93	0	S.I.D.	S.I.D.	S.I.D.
Carbofuran	96	5	µg/l		18				169	169	0	S.I.D.	S.I.D.	S.I.D.
Glyphosate	98	25	µg/l		700				111	107	4	S.I.D.	S.I.D.	S.I.D.
Organo-Phosphate Pesticides														
Diazinon	96	0.01	µg/l						167	144	14	S.I.D.	S.I.D.	S.I.D.
Chlorpyrifos	96	0.05	µg/l						167	167	0	S.I.D.	S.I.D.	S.I.D.
N- and P-Containing Pesticides														
Thiobencarb	96	1	µg/l						167	163	2	S.I.D.	S.I.D.	S.I.D.
All other N- and P- Pesticides	94	1.0-2.0	µg/l						182	182	0	S.I.D.	S.I.D.	S.I.D.
Phenoxyacetic Acid Herbicides														
2,4-D	96	10	µg/l		70				86	86	0	S.I.D.	S.I.D.	S.I.D.
2,4,5-TP	96	1	µg/l		50				86	86	0	S.I.D.	S.I.D.	S.I.D.
Bentazon	96	2	µg/l		18				86	86	0	S.I.D.	S.I.D.	S.I.D.

CV = Coefficient of variation

DL = Detection Limit

S.I.D. = Statistically Invalid Data, not enough data above detection limit collected

a) Criteria based on daily maximum

b) Criteria based on 30-day average

c) Criteria for the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo(k)fluoranthene, 1,12-benzoperylene, benzo(a)pyrene, chrysene, dibenzo(ah)anthracene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene and pyrene.

d) Criteria continuous concentration which equals the highest concentration of pollutant to which aquatic life can be exposed for an extended period time (4 days) without deleterious effects.

e) Criterion expressed in the total recoverable form.

f) Criteria maximum concentration which equals the highest concentration of pollutant to which aquatic life can be exposed for a short period time without deleterious effects.

g) Except for indicator bacteria, there are no numerical water quality standards that apply to stormwater or "non-point source" pollution. Current federal and state numerical standards apply only to "point source pollution," such as sanitary sewage, industrial and commercial discharges to the ocean, and other waterbodies. Water quality standards described in the 1995 Los Angeles Region Basin Plan or the 1997 California Ocean Plan do not apply to stormwater runoff, and any exceedance of values should not indicate violation nor noncompliance with the plans. Furthermore, a direct comparison of the sampling results with the Ocean Plan standards cannot be made since the results presented in the table are detected values before dilution, a factor allowed by the Ocean Plan.

h) Detection limits have changed throughout the monitoring process. Only data matching the current detection limit is displayed in this table. The *Data Included Since* field indicates the first year of the storm season with the current detection limit.