

**CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD  
LOS ANGELES REGION**

**ORDER NO. R4-2002-0142**

**NPDES PERMIT NO. CA0053716**

**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
WHITTIER NARROWS WATER RECLAMATION PLANT**

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**State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

**ORDER NO. R4-2002-0142**

**NPDES NO. CA0053716**

**WASTE DISCHARGE REQUIREMENTS  
FOR  
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Whittier Narrows Water Reclamation Plant)**

The California Regional Water Quality Control Board, Los Angeles Region (hereafter Regional Board), finds:

**PURPOSE OF ORDER**

1. County Sanitation Districts of Los Angeles County (hereinafter CSDLAC or Discharger) discharges tertiary-treated wastewater, from its Whittier Narrows Water Reclamation Plant (Whittier Narrows WRP) located in El Monte, to the San Gabriel River, Rio Hondo, Zone 1 Ditch, waters of the State and the United States; and, to Test Basin 1, a water of the State. The discharge is regulated under waste discharge requirements contained in Order No. 95-082, adopted by this Regional Board on June 12, 1995. Order No. 95-082 also serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0053716). Order No. 95-082 has an expiration date of May 10, 2000.
2. Section 122.6 of Title 40 Code of Federal Regulations (40 CFR) and section 2235.4 of Title 23 of the California Code of Regulations (CCR) state that an expired permit continue in force until the effective date of a new permit provided the permittee has timely submitted a complete application for a new permit. On November 15, 1999, CSDLAC filed a Report of Waste Discharge (ROWD) and applied to the Regional Board for reissuance of waste discharge requirements (WDR) and NPDES permit to discharge tertiary-treated wastewater. Therefore, the Discharger's permit has been administratively extended until the Regional Board acts on the new WDR and permit.
3. This Order is the reissuance of waste discharge requirements that serves as an NPDES permit for the Whittier Narrows WRP.

**FACILITY AND TREATMENT PROCESS DESCRIPTION**

4. CSDLAC own and operate the Whittier Narrows WRP, a tertiary wastewater treatment plant located at 301 North Rosemead Boulevard, El Monte, California. Attachment 1 shows the location of the plant. The Whittier Narrows WRP currently receives wastewater from Alhambra, Arcadia, Azusa, Bradbury, City of Industry, Duarte, El Monte, Glendale, Irwindale, La Cañada Flintridge, Los Angeles, Monrovia, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, Sierra Madre, South El Monte, South Pasadena,

and Temple City. The wastewater is a mixture of domestic and industrial wastewater. The latter is pretreated pursuant to 40 CFR Part 403 prior to discharge to the sewers.

5. The Whittier Narrows WRP is part of CSDLAC's integrated network of facilities, known as the Joint Outfall System, which includes seven treatment plants. The upstream treatment plants (Whittier Narrows, Pomona, La Cañada, Long Beach, Los Coyotes, and San Jose Creek) are connected to the Joint Water Pollution Control Plant (JWPCP) located in Carson. This system allows for the diversion of influent flows into, or around, each upstream plant, if so desired.
6. As reported in the ROWD, the Whittier Narrows WRP has a design capacity of 15.0 million gallons per day (mgd) and serves approximately 92,000 people.
7. The United States Environmental Protection Agency (USEPA) and the Regional Board have classified Whittier Narrows WRP as a major discharger. It has a Threat to Water Quality and Complexity Rating of 1-A, pursuant to CCR Section 2200.

Treatment at the Whittier Narrows WRP consists of primary sedimentation, activated sludge biological treatment, secondary sedimentation with coagulation, inert media filtration, chlorination and dechlorination. No facilities are provided for solids processing at the plant. Sewage solids separated from the wastewater are returned to the trunk sewer for conveyance to JWPCP for treatment and disposal. Attachment 2 is a schematic of the Whittier Narrows WRP wastewater flow.

8. **Water Recycling Facility.** The Discharger currently recycles nearly all of the treated effluent and plans to continue doing so. The production, distribution and reuse of recycled water for direct, nonpotable applications are presently regulated under Water Reclamation Requirements (WRR) Order No. 88-107, adopted by this Board on October 24, 1988. Pursuant to California Water Code section 13523, these WRRs were reviewed in 1997 and were readopted without change in Board Order No. 97-072, adopted on May 12, 1997. Under this Board Order, approximately 1% (23.12 million gallons per year) of the treated effluent recycled water is used for irrigation of ornamental plants in a nursery.

Almost all of the remaining recycled water (2,798.7 million gallons per year) is used for groundwater recharge at the Los Angeles County Department of Public Works' San Gabriel River Spreading Grounds and the Rio Hondo Spreading Grounds, under a separate permit (Regional Board Order No. 91-100, adopted September 9, 1991). CSDLAC is promoting additional reuse options for the treated effluent.

9. As illustrated on the Schematic of Wastewater Flow (Attachment 2) for the Whittier Narrows WRP, the recycled water that is piped for reuse is not dechlorinated to maintain an adequate level of residual chlorine to prevent/minimize regrowth of bacteria during distribution.
10. **Storm Water Management.** CSDLAC does not treat storm water runoff at the Whittier Narrows WRP, except for stormwater infiltration and inflows in the sewer and stormwater that traverses the treatment tanks. It has developed a Storm Water Pollution Prevention Plan (SWPPP) for storm water that does not enter the treatment system.

### **DISCHARGE OUTFALL AND RECEIVING WATER DESCRIPTION**

11. The Whittier Narrows WRP discharges tertiary treated wastewater to the San Gabriel River and Rio Hondo, waters of the United States, above the estuary, at the following discharge points:

Discharge Serial No. 001: Discharge to San Gabriel River via a point located approximately 700 feet upstream of the Whittier Narrows Dam (approximate coordinates: Latitude 34° 01' 23", Longitude 118° 03' 16"). The treated effluent generally flows down the river to the San Gabriel River Spreading Grounds.

Discharge Serial No. 002: Discharge to the Zone 1 Ditch at a point located approximately 5,500 feet upstream from its juncture with the Rio Hondo (approximate coordinates: Latitude 34° 01' 38", Longitude 118° 03' 26"). The treated effluents enter the Rio Hondo at a point located approximately 4,000 feet upstream of the Whittier Narrows Dam. The treated effluent generally flows down the Rio Hondo to the Rio Hondo Spreading Grounds.

Discharge Serial No. 003: Discharge to Test Basin 1 (approximate coordinates: Latitude 34° 01' 44", Longitude 118° 03' 36") used for the study of using recycled wastewater for groundwater recharge. There has been no discharge through this point since July 31, 1981, and there is no plan to utilize this point in the immediate future.

Discharge Serial No. 004: Discharge directly to Rio Hondo via a 27-inch diameter discharge line located at a point 1,400 feet upstream of San Gabriel Boulevard, above Whittier Narrows Dam (Approximate coordinates: Latitude 34° 01' 58", Longitude 118° 04' 09"). The treated effluent generally flows down the Rio Hondo to the Rio Hondo Spreading Grounds.

During dry weather (May 1 – October 31), the primary sources of water flow in the receiving waters, downstream of the discharge points, are the Whittier Narrows effluent and other NPDES-permitted discharges, including urban runoff conveyed through the municipal separate storm sewer systems (MS4). Storm water and dry weather urban runoff from MS4 are regulated under an NPDES permit, *Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles* (LA Municipal Permit), NPDES Permit No. CAS004001.

12. The Los Angeles County Flood Control District channelized portions of the San Gabriel River to convey and control floodwater, and to prevent damage to homes located adjacent to the river. Although not its main purpose, the San Gabriel River conveys treated wastewater along with floodwater, and urban runoff. The San Gabriel River is unlined near the points of discharge. Groundwater recharge occurs both incidentally and through separate water reclamation requirements (WRR) for groundwater recharge, in these unlined areas of the San Gabriel River where the underlying sediments are highly transmissive to water as well as pollutants. Water Replenishment District recharges the Rio Hondo and San Gabriel Spreading Grounds, located in the Montebello Forebay, with

water purchased from CSDLAC’s Whittier Narrows, Pomona, and San Jose Creek WRPs, under WRR Order No. 91-100, adopted by the Board on September 9, 1991.

Notwithstanding that segments located further downstream of the discharge are concrete-lined, the watershed supports a diversity of wildlife, particularly an abundance of avian species such as the *Least Bell’s Vireo*, *Tricolored Blackbird*, and *California Gnatcatcher*. Aquatic life, such as fish, invertebrates, and algae exist in the San Gabriel River Watershed.

**DISCHARGE QUALITY**

13. From July 1995 to December 2001, the Discharger’s discharge monitoring reports showed the following:
  - treated wastewater average annual flow rate of 9.85 mgd.
  - average annual removal rate of 97.84% and >99%, of BOD and total suspended solids, respectively.
  - 7-day median and daily maximum coliform values as <1 coliform forming units (CFU)/100 ml in the treated wastewater.
  
14. Based on data submitted in the 2000 Annual Summary Report, Table 1 represents the characteristics of the effluent discharged. (The “<” symbol indicates that the pollutant was not detected (ND) at that concentration level.) Attachment D contains more extensive statistical analyses of the effluent priority pollutants data from July 1995 to December 2001.

Table 1

Effluent Characteristics

CTR#	Constituent	Unit	Ave. or Range	Maximum	Minimum
	Flow	mgd	7.53	9.34	3.78
	PH	pH units	7.3	7.5	6.9
	Temperature (Nov. – April) (May – Oct.)	°F	74 winter 79 summer	76 81	72 76
	BOD <sub>5</sub> 20°C	mg/L	3	6	<2
	Suspended solids	mg/L	<1-<2	<2	<1
	Settleable solids	ml/L	<0.1	<0.1	<0.1
	Total dissolved solids	mg/L	538	560	523
	Chloride	mg/L	94	105	83
	Sulfate	mg/L	96	132	78
	Boron	mg/L	0.47	0.53	0.35
	Total Phosphate	mg/L	2.95	4.1	1.8
	Turbidity	NTU	1.1	1.6	0.8
	Oil and grease	mg/L	<4 -10	10	<4
	Fluoride	mg/L	0.62	0.68	0.49
	MBAS	mg/L	<0.1-0.1	0.1	<0.1
	Ammonia-N	mg/L	<0.1-4	4	<0.1
	Organic-N	mg/L	2.1	4.5	1.3

CTR#	Constituent	Unit	Ave. or Range	Maximum	Minimum
	Nitrate-N	mg/L	6.75	9.45	5.61
	Nitrite-N	mg/L	0.22	0.52	0.07
	Total Nitrogen	mg/L	10.5	13.13	8.96
1	Antimony	µg /L	<0.5-<0.6	<0.6	<0.5
2	Arsenic	µg /L	1.3	1.4	1.0
3	Beryllium	µg /L	<2.5	<2.5	<2.5
4	Cadmium	µg /L	<2-<3	<3	<2
5a	Chromium III				
5b	Chromium VI				
	Total Chromium	µg /L	<10	<10	<10
6	Copper	µg /L	<10	<10	<10
	Iron	µg /L	<50	<50	<50
7	Lead	µg /L	<10	<10	<10
8	Mercury	µg /L	<0.1	<0.1	<0.1
9	Nickel	µg /L	<20	<20	<20
10	Selenium	µg /L	<1-2.3	2.3	<1
11	Silver	µg /L	<10	<10	<10
12	Thallium	µg /L	<1	<1	<1
13	Zinc	µg /L	80	90	70
14	Cyanide	µg /L	<10	<10	<10
16	2,3,7,8-TCDD (Dioxin)	µg /L	<2	<2	<2
17	Acrolein	µg /L	<10	<10	<10
18	Acrylonitrile	µg /L	<10	<10	<10
19	Benzene	µg /L	<0.3- < 0.5	<0.5	<0.3
20	Bromoform	µg /L	<0.5	<0.5	<0.5
21	Carbon tetrachloride	µg /L	<0.5	<0.5	<0.5
22	Chlorobenzene	µg /L	<0.5	<0.5	<0.5
23	Dibromochloromethane	µg /L	<0.5	<0.5	<0.5
24	Chloroethane	µg /L	<0.5- <2.5	<2.5	<0.5
25	2-Chloroethylvinyl ether	µg /L	< 0.5- <1	<1	<0.5
26	Chloroform	µg /L	7.9	14	4
27	Bromodichloromethane	µg /L	<0.5-3	3	<0.5
28	1,1-Dichloroethane	µg /L	< 0.3- <0.5	<0.5	<0.3
29	1,2-Dichloroethane	µg /L	< 0.3- <0.5	<0.5	<0.3
30	1,1-Dichloroethylene	µg /L	< 0.3- <1	<1	<0.3
31	1,2-Dichloropropane	µg /L	< 0.5	<0.5	<0.5
32	1,3-Dichloropropylene	µg /L	< 0.5	<0.5	<0.5
33	Ethylbenzene	µg /L	< 0.3-<0.5	<0.5	<0.3
34	Methyl bromide (Bromomethane)	µg /L	<1-<2.5	<2.5	<1
35	Methyl chloride (Chloromethane)	µg /L	<0.5-<1	<1	<0.5
36	Methylene chloride	µg /L	<0.5-<1	<1	<0.5
37	1,1,2,2-Tetrachloroethane	µg /L	< 0.5	<0.5	<0.5
38	Tetrachloroethylene	µg /L	<0.3-<0.5	<0.5	<0.3
39	Toluene	µg /L	<0.3 – 2.4	2.4	<0.3
40	1,2-Trans-dichloroethylene	µg /L	< 0.3- <0.5	<0.5	<0.3

CTR#	Constituent	Unit	Ave. or Range	Maximum	Minimum
41	1,1,1-Trichloroethane	µg /L	<0.5	<0.5	<0.5
42	1,1,2-Trichloroethane	µg /L	< 0.3- <0.5	<0.5	<0.3
43	Trichloroethylene	µg /L	< 0.3- <0.5	<0.5	<0.3
44	Vinyl chloride	µg /L	< 0.3- <0.5	<0.5	<0.3
45	2-Chlorophenol	µg /L	<1	<1	<1
46	2,4-Dichlorophenol	µg /L	<1	<1	<1
47	2,4-Dimethylphenol	µg /L	<1	<1	<1
48	2-Methyl-4,6-dinitrophenol	µg /L	<1	<1	<1
49	2,4-Dinitrophenol	µg /L	<6	<6	<6
50	2-Nitrophenol	µg /L	<1	<1	<1
51	4-Nitrophenol	µg /L	<1	<1	<1
52	3-Methyl-4-chlorophenol	µg /L	<1	<1	<1
53	Pentachlorophenol	µg /L	<1	<1	<1
54	Phenol	µg /L	<1	<1	<1
55	2,4,6-Trichlorophenol	µg /L	<1	<1	<1
56	Acenaphthene	µg /L	<1	<1	<1
57	Acenaphthylene	µg /L	<1	<1	<1
58	Anthracene	µg /L	<1	<1	<1
59	Benzidine	µg /L	<20	<20	<20
60	Benzo(a)anthracene	µg /L	<1	<1	<1
61	Benzo(a)pyrene	µg /L	<0.2	<0.2	<0.2
62	Benzo(b)fluoranthene	µg /L	<1	<1	<1
63	Benzo(g,h,i)perylene	µg /L	<1	<1	<1
64	Benzo(k)fluoranthene	µg /L	<1	<1	<1
65	Bis(2-chloroethoxy)methane	µg /L	<1	<1	<1
66	Bis(2-chloroethyl)ether	µg /L	<1	<1	<1
67	Bis(2-chloroisopropyl)ether	µg /L	<1	<1	<1
68	Bis(2-ethylhexyl)phthalate	µg /L	<1	<1	<1
69	4-Bromophenyl phenyl ether	µg /L	<1	<1	<1
70	Butylbenzyl phthalate	µg /L	<1	<1	<1
71	2-Chloronaphthalene	µg /L	<1	<1	<1
72	4-Chlorophenyl phenyl ether	µg /L	<1	<1	<1
73	Chrysene	µg /L	<1	<1	<1
74	Dibenzo(a,h)anthracene	µg /L	<1	<1	<1
75	1,2-Dichlorobenzene	µg /L	<1	<1	<1
76	1,3-Dichlorobenzene	µg /L	<1	<1	<1
77	1,4-Dichlorobenzene	µg /L	<1	<1	<1
78	3,3'-Dichlorobenzidine	µg /L	<1	<1	<1
79	Diethyl phthalate	µg /L	<1 – 2	2	<1
80	Dimethyl phthalate	µg /L	<1	<1	<1
81	Di-n-butyl phthalate	µg /L	<1	<1	<1
82	2,4-Dinitrotoluene	µg /L	<1	<1	<1
83	2,6-Dinitrotoluene	µg /L	<1	<1	<1
84	Di-n-octyl phthalate	µg /L	<1	<1	<1
85	1,2-Diphenylhydrazine	µg /L	<1	<1	<1

CTR#	Constituent	Unit	Ave. or Range	Maximum	Minimum
86	Fluoranthene	µg /L	<1	<1	<1
87	Fluorene	µg /L	<1	<1	<1
88	Hexachlorobenzene	µg /L	<1	<1	<1
89	Hexachlorobutadiene	µg /L	<1	<1	<1
90	Hexachlorocyclopentadiene	µg /L	<1 - <5	<5	<1
91	Hexachloroethane	µg /L	<1	<1	<1
92	Indeno(1,2,3-cd)pyrene	µg /L	<1	<1	<1
93	Isophrone	µg /L	<1	<1	<1
94	Naphthalene	µg /L	<1	<1	<1
95	Nitrobenzene	µg /L	<1	<1	<1
96	N-Nitrosodimethylamine (NDMA)	µg /L	<1	<1	<1
97	N-Nitrosodi-n-propylamine	µg /L	<1	<1	<1
98	N-Nitrosodiphenylamine	µg /L	<1	<1	<1
99	Phenanthrene	µg /L	<1	<1	<1
100	Pyrene	µg /L	<1	<1	<1
101	1,2,4-Trichlorobenzene	µg /L	<1	<1	<1
102	Aldrin	µg /L	<0.01	<0.01	<0.01
103	alpha-BHC	µg /L	<0.01	<0.01	<0.01
104	beta-BHC	µg /L	<0.01	<0.01	<0.01
105	gamma-BHC (Lindane)	µg /L	0.02	0.02	0.01
106	delta-BHC	µg /L	<0.01	<0.01	<0.01
107	Chlordane	µg /L	<0.05	<0.05	<0.05
108	4,4'-DDT	µg /L	<0.01	<0.01	<0.01
109	4,4'-DDE	µg /L	<0.01	<0.01	<0.01
110	4,4- DDD	µg /L	<0.01	<0.01	<0.01
111	Dieldrin	µg /L	<0.01	<0.01	<0.01
112	alpha-Endosulfan	µg /L	<0.01	<0.01	<0.01
113	beta-Endosulfan	µg /L	<0.01	<0.01	<0.01
114	Endosulfan sulfate	µg /L	<0.1	<0.1	<0.1
115	Endrin	µg /L	<0.01	<0.01	<0.01
116	Endrin aldehyde	µg /L	<0.04	<0.04	<0.04
117	Heptachlor	µg /L	<0.01	<0.01	<0.01
118	Heptachlor epoxide	µg /L	<0.01	<0.01	<0.01
	Polychlorinated biphenyls (PCBs)				
119	Aroclor 1016	µg /L	<0.1	<0.1	<0.1
120	Aroclor 1221	µg /L	<0.1	<0.1	<0.1
121	Aroclor 1232	µg /L	<0.1	<0.1	<0.1
122	Aroclor 1242	µg /L	<0.1	<0.1	<0.1
123	Aroclor 1248	µg /L	<0.1	<0.1	<0.1
124	Aroclor 1254	µg /L	<0.05	<0.05	<0.05
125	Aroclor 1260	µg /L	<0.1	<0.1	<0.1
126	Toxaphene	µg /L	<0.5	<0.5	<0.5

**APPLICABLE LAWS, PLANS, POLICIES AND REGULATIONS**

15. ***Federal Clean Water Act.*** The federal Clean Water Act (CWA) provides that no person may discharge pollutants from a point source into a water of the United States, except in conformance with an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect and enhance water quality.
16. ***Basin Plan.*** The Board adopted a revised *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) on June 13, 1994, amended on January 27, 1997, by Regional Board Resolution No. 97-02. This updated and consolidated plan represents the Board's master water quality control planning document and regulations. The revised Basin Plan was approved by the State Board and the State of California Office of Administrative Law (OAL) on November 17, 1994, and February 23, 1995, respectively. The Basin Plan (i) designates beneficial uses for surface and groundwaters, (ii) sets narrative and numeric objectives that must be attained or maintained to protect the designated (existing and potential) beneficial uses and conform to the state and federal antidegradation policies, and (iii) includes implementation provisions, programs, and policies to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other state pertinent water quality policies and regulations. The 1994 Basin Plan was prepared to be consistent with all applicable State and Regional Board plans and policies adopted from 1994 and earlier. This Order implements the plans, policies and provisions of the Board's Basin Plan.
17. ***Sources of Drinking Water Policy.*** On May 19, 1988, the State Board adopted Resolution No. 88-63, *Sources of Drinking Water (SODW) Policy*, which established a policy that all surface and ground waters, with limited exemptions, are suitable or potentially suitable for municipal and domestic supply. To be consistent with State Board's SODW policy, on March 27, 1989, the Regional Board adopted Resolution No. 89-03, *Incorporation of Sources of Drinking Water Policy into the Water Quality Control Plans (Basin Plans) – Santa Clara River Basin (4A)/ Los Angeles River Basin (4B)*.
18. Consistent with Regional Board Resolution No. 89-03 and State Board Resolution No. 88-63, in 1994 the Regional Board conditionally designated all inland surface waters in Table 2-1 of the 1994 Basin Plan as existing, intermittent, or potential for Municipal and Domestic Supply (MUN). However, the conditional designation in the 1994 Basin Plan included the following implementation provision: "no new effluent limitations will be placed in Waste Discharge Requirements as a result of these [potential MUN designations made pursuant to the SODW policy and the Regional Board's enabling resolution] until the Regional Board adopts [a special Basin Plan Amendment that incorporates a detailed review of the waters in the Region that should be exempted from the potential MUN designations arising from SODW policy and the Regional Board's enabling resolution]." On February 15, 2002, the USEPA clarified its partial approval (May 26, 2000) of the 1994 Basin Plan amendments and acknowledged that the conditional designations do not currently have a legal effect, do not reflect new water quality standards subject to USEPA review, and do not support new effluent limitations based on the conditional designations stemming from the SODW Policy until a subsequent review by the Regional Board

finalizes the designations for these waters. This permit is designed to be consistent with the existing Basin Plan.

19. **Beneficial Uses.** The designated beneficial uses in the Basin Plan for the San Gabriel River, Rio Hondo, and its contiguous waters are:

- A. For surface water:

San Gabriel River - Hydrologic Unit 405.41

Existing: wildlife habitat.

Intermittent: groundwater recharge, water contact recreation and non-contact recreation, and warm freshwater habitat

Potential: municipal and domestic water supply (MUN).

The potential MUN beneficial use for the water body is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

San Gabriel River: Whittier Narrows-Firestone Boulevard - Hydrologic Unit 405.15

Existing: contact water<sup>1</sup> recreation; non-contact water recreation; wildlife habitat; and rare, threatened, or endangered species.

Intermittent: groundwater recharge, and warm freshwater habitat

Potential: industrial service supply; industrial process supply, and MUN.

The potential MUN beneficial use for the water body is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

San Gabriel River: Firestone Boulevard-Estuary - Hydrologic Unit 405.15

Existing: contact water<sup>1</sup> recreation and non-contact water recreation.

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<sup>1</sup> Although the Los Angeles County Department of Public Works post signs prohibiting access to the Rio Hondo and San Gabriel River, its tributaries and estuary, the public has been observed fishing and wading across the river. There is public access to the San Gabriel River, its tributaries, and estuary through the bike trails that run parallel to the river. Since there is public contact in the receiving water downstream of the discharge, the quality of wastewater discharged to the Rio Hondo and San Gabriel River must be such that no public health hazard is created.

Potential: warm freshwater habitat; wildlife habitat; and, MUN.

The potential MUN beneficial use for the water body is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

San Gabriel River Estuary - Hydrologic Unit 405.15

Existing: industrial service supply; navigation; contact<sup>1</sup> and non-contact water recreation; commercial and sport fishing; estuarine habitat; marine habitat; wildlife habitat; rare, threatened, or endangered species; migration of aquatic organism; and spawning, reproduction, and/or early development.

Potential: shellfish harvesting.

Rio Hondo to Spreading Grounds – Hydro Unit 405.15

Existing: water contact<sup>1</sup> recreation and non-contact water recreation, groundwater recharge, and wildlife habitat.

Intermittent: groundwater recharge and wildlife habitat.

Potential: MUN and warm freshwater habitat.

The potential MUN beneficial use for the water body is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

Rio Hondo below Spreading Grounds – Hydrologic Unit 405.15

Existing: water contact<sup>1</sup> recreation and non-contact water recreation, groundwater recharge, and wildlife habitat.

Intermittent: groundwater recharge and wildlife habitat.

Potential: MUN and warm freshwater habitat.

The potential MUN beneficial use for the water body is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

Los Angeles River - Hydrologic Unit 405.15

Existing: water contact<sup>1</sup> recreation and non-contact water recreation, groundwater recharge, and warm freshwater habitat.

Potential: MUN, industrial process supply, and wildlife habitat.

The potential MUN beneficial use for the water body is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

Los Angeles River to Estuary - Hydrologic Unit 405.12

Existing: water contact<sup>1</sup> recreation and non-contact water recreation, groundwater recharge, warm freshwater habitat, marine habitat, wildlife habitat, and rare, threatened, or endangered species.

Potential: MUN, industrial process supply, industrial process supply, migration of aquatic organisms, spawning, reproduction, and/or early development, and shellfish harvesting.

The potential MUN beneficial use for the water body is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

B. The beneficial uses of the receiving ground waters are:

Los Angeles Coastal Plain (Central Basin) – DWR Basin No. 4-11

Existing: municipal and domestic supply, industrial service supply; industrial process supply; and, agricultural supply.

San Gabriel Valley (Main San Gabriel Basin) - DWR Basin No. 4-13

Existing: municipal and domestic supply, industrial service supply; industrial process supply; and, agricultural supply.

20. **Title 22 of the California Code of Regulations.** The California Department of Health Services established primary and secondary maximum contaminant levels (MCLs) for a number of chemical and radioactive contaminants. These MCLs can be found in Title 22, California Code of Regulations (Title 22). Chapter 3 of the Basin Plan incorporates Title 22 by reference. Title 22 MCLs have been incorporated into NPDES permits and Non-Chapter 15 WDRs to protect the municipal and domestic supply (MUN) and groundwater recharge (GWR) beneficial uses.

Groundwater Recharge. Sections of the San Gabriel River, near the Whittier Narrows WRP discharge points, are designated as GWR. Surface water from the San Gabriel River enters the Main San Gabriel Valley and the Central Los Angeles Coastal Plain Groundwater Basins. Since ground water from these basins is used to provide drinking water to over one million people, Title 22-based limits are needed to protect that drinking water supply. By limiting the contaminants in the Whittier Narrows WRP discharges, the amount of pollutants entering the surface waters and groundwater basins are correspondingly reduced. Once groundwater basins are contaminated, it may take years to clean up, depending on the pollutant. Compared to surface water pollution, investigations and remediation of groundwater are often more difficult, costly, and extremely slow. For these reasons Title 22-based limits will remain in the NPDES permit.

21. **Antidegradation Policy.** On October 28, 1968, the State Board adopted Resolution No. 68-16, *Maintaining High Quality Water*, which established an antidegradation policy for State and Regional Boards. Similarly, the CWA (section 304(d)(4)(B)) and USEPA regulations (40 CFR section 131.12) require all NPDES permitting actions to be consistent with the federal antidegradation policy.
22. **California Toxics Rule (CTR).** The USEPA promulgated the CTR criteria that became effective on May 18, 2000 (codified as 40 CFR section 131.38). The CTR established water quality criteria for priority toxic pollutants in California's inland surface waterways. The CTR also provides a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the discharger demonstrates that it is infeasible to promptly comply with the CTR criteria. The human health criteria for carcinogens in the CTR is based on an incremental cancer risk level of one in a million ( $10^{-6}$ ). USEPA recognizes that adoption of criteria at a different risk factor is outside of the scope of the CTR. However, States have the discretion to adopt water quality criteria that result in a higher risk level, if the chosen risk level has been demonstrated to adequately protect the most highly exposed subpopulation, and all necessary public outreach participation has been conducted. This demonstration has not been conducted in California. Further, information that is available on highly exposed subpopulations in California supports the need to protect the general population at the  $10^{-6}$  level. The discharger may undertake a study, in accordance with the procedures set forth in Chapter 3 of USEPA's *Water Quality Standards Handbook: Second Edition* (EPA-823-B-005a, August 1994) to demonstrate that a different risk level is more appropriate for discharges subject to this Order. Upon completion of the study, the State Board and Regional Board will review the results and determine if the risk level proposed is more appropriate. In the mean time, the State will continue using a  $10^{-6}$  risk level, as it has done historically, to protect the population against carcinogenic pollutants.
23. **State Implementation Plan (SIP).** Anticipating USEPA's promulgation of the CTR, the State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Plan or SIP) on March 2, 2000. The SIP was amended by Resolution No. 2000-30, adopted on April 26, 2000, and the Office of Administrative Law approved the SIP on April 28, 2000. The SIP applies to discharges of toxic pollutants to inland surface waters, enclosed bays and estuaries of California which are subject to regulation under

the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code) and the Clean Water Act. The policy provides for the following:

- a. implementation procedures for the priority pollutant criteria promulgated by USEPA through the CTR and for the priority pollutant objectives established by Regional Water Quality Control Boards (RWQCBs) in their water quality control plans (Basin Plans);
  - b. monitoring requirements for priority pollutants with insufficient data to determine reasonable potential;
  - c. monitoring requirements for 2,3,7,8-TCDD equivalents; and,
  - d. chronic toxicity control.
24. **Watershed Approach.** This Regional Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region following the USEPA guidance in *Watershed Protection: A Project Focus* (EPA841-R-95-003, August 1995). The objective of the WMA is to provide a more comprehensive and integrated strategy resulting in water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically-defined drainage basin or watershed. The WMA emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available. This Order fosters the implementation of this approach by protecting beneficial uses in the watershed and requiring CSDLAC to participate with the Los Angeles and San Gabriel River Watershed Council (Watershed Council), and other stakeholders, in the development and implementation of a watershed-wide monitoring program. On January 17, 2001, Regional Board staff gave a presentation before the Watershed Council, discussed components of the tentative NPDES permits for the five CSDLAC WRPs, and requested their future participation in the development of a watershed-wide monitoring program. The watershed-wide monitoring program is expected to be developed within one year from the effective date of this Order.
25. **CWA 303(d) Listed Pollutants.** On May 12, 1999, USEPA approved the State's 1998 list of impaired waterbodies prepared pursuant to CWA 303(d). The list (hereinafter referred to as the 303(d) list) identifies waterbodies where water quality standards are not expected to be met after the implementation of technology-based effluent limitations on point sources (water quality-limited waterbodies).

The Rio Hondo, Los Angeles River, and the San Gabriel River, and its tributaries are on the 303(d) List for the following pollutants/stressors, from point and non-point sources:

Rio Hondo Reach 2 (at Spreading grounds)-- Hydrologic Unit 405.41

- Ammonia, and Coliform.

San Gabriel River Reach 3 (Whittier Narrows to Ramona) -- Hydrologic Unit 405.41

- Toxicity.

Los Angeles River Reach 1 (Estuary to Carson Street) -- Hydrologic Unit 405.12  
- Ammonia, Coliform, Nutrients (Algae), Lead, pH, scum/foam, Trash.

Rio Hondo Reach 1 (Confluence of LA River to 5 Fwy.) -- Hydrologic Unit 405.15  
- Ammonia, Coliform, Lead, pH, Trash, Copper, Zinc.

San Gabriel River Reach 2 (Firestone to Whittier N. Dam) -- Hydrologic Unit 405.15  
- Ammonia, Coliform, Lead.

San Gabriel River Reach 1 (Estuary to Firestone) -- Hydrologic Unit 405.15  
- Abnormal fish histology, Algae, Ammonia, Coliform, Toxicity.

San Gabriel River Estuary -- Hydrologic unit 405.15  
- Abnormal fish histology and Arsenic (in fish tissue).

26. **Total Maximum Daily Loads.** A Total Maximum Daily Load (TMDL) is a determination of the amount of a pollutant from point, nonpoint, and natural background sources, with a margin of safety, that may be discharged to a water quality-limited water body. The regulatory requirements for TMDL are codified in 40 CFR section 130.7. Section 303(d) of the CWA requires that TMDLs must be developed for the pollutants of concern which impact the water quality of water bodies on the 303(d) list. The Regional Board is developing a TMDL that will assess the extent and sources of the ammonia and algae (nutrient) problems in the San Gabriel River. Under the March 23, 1999, amended consent decree between the USEPA and Heal the Bay, et al., (Case No. C 98-4825 SBA, *Heal the Bay, Santa Monica Bay Keeper, et al. v. Browner, et.al.*), TMDLs for nitrogen and heavy metals for the San Gabriel River Watershed must be completed by March 2003 and March 2006, respectively. The remaining TMDLs, such as abnormal fish histology, algae, and coliform are tentatively scheduled for completion by 2012, 2003, and 2012, respectively. Subsequent to the effective date of the TMDLs, this Order or its successors will be reopened and modified to include final effluent limits for 303(d) listed constituents that will be consistent with the waste load allocations in the relevant TMDLs.
27. Pursuant to this Regional Board's watershed initiative framework, the San Gabriel River Watershed Management Area was the targeted watershed for fiscal year 1999-2000. However, the NPDES permit renewals were re-scheduled so that provisions of the CTR and SIP could be incorporated into the permits.

On June 29, 2000, the Regional Board published the *San Gabriel River State of the Watershed Report* (State of the Watershed Report). This document contains a summary of water quality problems and issues in the San Gabriel River Watershed, describes the San Gabriel River and its tributaries, presents an overview of the existing monitoring data, and suggests that further monitoring is required. This report forms the basis for the water quality element of future watershed plans.

As described in the State of the Watershed Report, the San Gabriel River drains a 689 square mile area of eastern Los Angeles County; its headwaters originate in National Forest lands in the San Gabriel Mountains. The San Gabriel River watershed consists of extensive areas of undisturbed riparian and woodland habitats in its upper reaches. The

U.S. Congress has set aside a wilderness area in much of the West and East Forks of the San Gabriel River. Towards the middle of the watershed, large spreading grounds are used to recharge groundwater basins. The watershed is hydraulically connected to the Los Angeles River Watershed through the Whittier Narrows Reservoir. Nurseries and small stable areas are located along channelized portions of the river. The lower part of the San Gabriel River Watershed is heavily urbanized.

28. **Performance Goals.** In Order No. 95-082, the Regional Board implemented the Water Quality Task Force<sup>2</sup> recommendations on the use of performance goals, rather than performance-based limits, when appropriate. In the absence of an Inland Surface Water Plan and Enclosed Bays and Estuaries Plan, performance goals were intended to minimize pollutant loadings (primarily toxics) and, at the same time, maintain the incentive for future voluntary improvement of water quality whenever feasible, without the imposition of more stringent limits based on improved performance. Effluent performance goals were not enforceable limitations or standards. This Order does not contain performance goals, but rather implements controls as referenced below to reflect technology-based effluent limits and water quality-based effluent limits (WQBELs).

#### **REGULATORY BASIS FOR EFFLUENT LIMITS AND DISCHARGE REQUIREMENTS**

29. **Water Quality Objectives and Effluent Limits.** Water Quality Objectives (WQOs) and effluent limitations in this permit are based on:
- The plans, policies and water quality standards (beneficial uses + objectives + antidegradation policy) contained in the 1994 *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*, as amended, including chemical constituent limitations established by incorporating the California Code of Regulations, title 22, maximum contaminant levels designed to protect the existing drinking water use of the receiving groundwaters;
  - California Toxics Rule (40 CFR 131.38);
  - The State Board's "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California" (the State Implementation Plan or SIP);
  - USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs Final May 31, 1996;
  - USEPA Whole Effluent Toxicity (WET) Control Policy July 1994;
  - Applicable Federal Laws and Regulations
    - Federal Clean Water Act, and
    - 40 CFR sections 122 125, and 131, among others; and,
  - Best professional judgment (pursuant to 40 CFR section 122.44).
30. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that water quality based effluent limits may be set based on USEPA criteria and supplemented where necessary by other relevant information to

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<sup>2</sup> *Working Together for an Affordable Clean Water Environment.* A final report presented to the California Regional Water Quality Control Board, Los Angeles Region by Water Quality Advisory Task Force, September 1993.

attain and maintain narrative water quality criteria to fully protect designated beneficial uses.

31. U.S. EPA regulations, policy, and guidance documents upon which Best Professional Judgment (BPJ) was developed include, in part:
- Inspectors Guide for Evaluation of Municipal Wastewater Treatment Plants, April 1979 (EPA/430/9-79-010);
  - Fate of Priority Pollutants in Publicly Owned Treatment Works Pilot Study October 1979 (EPA-440/1-79-300);
  - Technical Support Document for Water Quality Based Toxics Control March 1991 (EPA-505/ 2-90-001); and,
  - USEPA NPDES Permit Writers' Manual, December 1996 (EPA-833-B-96-003).

32. **Mass and Concentration Limits.** 40 CFR section 122.45(f)(1) requires that except under certain conditions, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR section 122.45(f)(2) allows the permit writer, at its discretion, to express limits in additional units (e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both.

Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. Concentration-based effluent limits, on the other hand, discourage the reduction in treatment efficiency during low-flow periods and require proper operation of the treatment units at all times. In the absence of concentration-based effluent limits, a permittee would be able to increase its effluent concentration (i.e., reduce its level of treatment) during low-flow periods and still meet its mass-based limits. To account for this, this permit includes mass and concentration limits for some constituents; however, the mass-based limits are inappropriate during wet weather flows when plant flows may exceed design capacity. Therefore, during storm events when flows exceed design capacity, only concentration-based limits are applicable.

33. **Maximum Daily Effluent Limitations.** Pursuant to 40 CFR section 122.45(d)(2), for a POTW's continuous discharges, all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall, unless impracticable, be stated as average weekly and average monthly discharge limitations. It is impracticable to only include average weekly and average monthly effluent limitations for certain pollutants in the permit, because a single daily discharge of certain pollutants, in excess amounts, can cause violations of water quality objectives. The effects of certain pollutants on aquatic organisms are often rapid. For many pollutants, an average weekly or average monthly effluent limitation alone is not sufficiently protective of beneficial uses. As a result, maximum daily effluent limitations, as referenced in 40 CFR section 122.45(d)(1), are included in the permit for certain constituents as discussed in the Fact Sheet accompanying this Order.
34. **Pretreatment.** Pursuant to 40 CFR Part 403, CSDLAC developed and has implemented an approved industrial wastewater pretreatment program. This Order requires implementation of the approved pretreatment program.

35. **Sewage Sludge.** To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 CFR Part 503 to regulate the use and disposal of municipal sewage sludge. This Order implements the regulations and it is the responsibility of the Discharger to comply with said regulations, which are enforceable by USEPA.
36. **Storm Water.** CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR section 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Board issued a statewide general permit, General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities. This permit was amended in September 1992 and reissued on April 17, 1997 in State Board Order No. 97-03-DWQ.

General NPDES permit No. CAS000001 is applicable to storm water discharges from the Whittier Narrows WRP's premises. On June 4, 1992, CSDLAC filed a Notice of Intent to comply with the requirements of the general permit. CSDLAC developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP), to comply with the State Board's Order No. 97-03-DWQ.

37. **Clean Water Act Effluent Limitations.** Numeric and narrative effluent limitations are established pursuant to Section 301 (Effluent Limitations), Section 302 (Water Quality-Related Effluent Limitations), Section 303 (Water Quality Standards and Implementation Plans), Section 304 (Information and Guidelines [Effluent]), Section 305 (Water Quality Inventory), Section 307 (Toxic and Pretreatment Effluent Standards), and Section 402 (NPDES) of the CWA. The CWA and amendments thereto are applicable to the discharges herein.
38. **Antibacksliding.** Antibacksliding provisions are contained in Sections 303(d)(4) and 402(o) of the CWA and in 40 CFR section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions. Section 402(o)(2) outlines six exceptions where effluent limitations may be relaxed.
39. **Applicable Water Quality Objectives.** 40 CFR section 122.44(d)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial use.

The Basin Plan includes narrative and numeric Water Quality Objectives (WQOs). The CTR promulgates numeric aquatic life criteria for 23 toxic pollutants and numeric human health criteria for 57 toxic pollutants. A compliance schedule provision in the CTR and the SIP authorizes the State to issue schedules of compliance for new or revised NPDES permit limits based on the federal CTR criteria when certain conditions are met. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that WQBELs may be set based on USEPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.

40. **Types of Pollutants.** For CWA regulatory purposes, pollutants are grouped into three general categories under the NPDES program: conventional, toxic, and non-conventional. By definition, there are five conventional pollutants (listed in 40 CFR section 401.16): 5-day biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease. Toxic or "priority" pollutants are those defined in Section 307(a)(1) of the CWA (and listed in 40 CFR section 401.12 and 40 CFR Part 423, Appendix A) and include metals and organic compounds. Non-conventional pollutants are those which do not fall under either of the two previously described categories and include such parameters as ammonia, phosphorous, chemical oxygen demand, whole effluent toxicity, etc.
41. **Technology-Based Limits for Municipal Facilities (POTWs).** Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the discharger to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level--referred to as "secondary treatment"--that all POTWs were required to meet by July 1, 1977. More specifically, Section 301(b)(1)(B) of the CWA required that EPA develop secondary treatment standards for POTWs as defined in Section 304(d)(1). Based on this statutory requirement, EPA developed national secondary treatment regulations which are specified in 40 CFR Part 133. These technology-based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of five-day biochemical oxygen demand, total suspended solids, and pH.
42. **Water Quality Based Effluent Limits (WQBELs).** Water quality-based effluent limits are designed to protect the quality of the receiving water by ensuring that State water quality standards are met by discharges from an industrial/municipal point source. If, after technology-based effluent limits are applied, a point source discharge will cause, have the reasonable potential to cause, or contribute to an exceedance of an applicable water quality criterion, then 40 CFR section 122.44(d)(1) requires that the permit contain a WQBEL. Although the CWA establishes explicit technology-based requirements for POTWs, Congress did not exempt POTWs from additional regulation to protect water quality standards. As a result, POTWs are also subject to WQBELs. Applicable water quality standards for the San Gabriel River, Rio Hondo, and Los Angeles River are contained in the Basin Plan and CTR, as described in previous findings.
43. **Water Quality Based Effluent Limitations for Toxic Pollutants.** Toxic substances are regulated in this permit by WQBELs derived from the 1994 Basin Plan, the CTR, and/or best professional judgment (BPJ) pursuant to 40 CFR section 122.44. If a discharge causes, has a reasonable potential to cause, or contribute to a receiving water excursion above a narrative or numeric objective within a State water quality standard, federal law and regulations, as specified in 40 CFR section 122.44(d)(1)(i), and in part, the SIP, require the establishment of WQBELs that will protect water quality. As documented in Table R and the fact sheet, pollutants exhibiting reasonable potential in the discharge, authorized in this Order, are identified in the Reasonable Potential Analysis (RPA) section and have final effluent limits. The discharger is required to gather the appropriate data and the Regional Board will determine if final effluent limits are needed. If final limits are needed, the permit will be reopened and limits will be included in the permit.

44. ***Basis for Effluent Limits for 303(d) Listed Pollutants.*** For 303(d) listed pollutants, the Regional Board plans to develop and adopt total maximum daily loads (TMDLs) which will specify wasteload allocations (WLAs) for point sources and load allocations (LA) for non-point sources, as appropriate. Following the adoption of TMDLs by the Regional Board, NPDES permits will be issued, and where appropriate, reopened to include effluent limits consistent with the assumptions of the TMDL, based on applicable WLAs. In the absence of a TMDL, the permits will include water quality-based effluent limitations derived as provided in the CTR and SIP (if applicable). These effluent limits are based on criteria applied end-of-pipe.
45. ***Mixing Zones and Dilution Credits.*** Mixing zones and dilution credits are not allowed in this Order. Allowance of a mixing zone is in the Regional Board's discretion under Section 1.4.2 of the SIP and under the Basin Plan (Basin Plan Chapter 4, page 30). If the discharger subsequently conducts appropriate mixing zone and dilution credit studies, the Regional Board can evaluate the propriety of granting a mixing zone or establishing dilution credits. The Regional Board has concluded mixing zones and dilution credits would be inappropriate to grant in light of the following factors:
- The Whittier Narrows WRP discharge contributes the largest flow into the San Gabriel watershed in the vicinity of the discharge point it overwhelms the receiving water providing limited mixing and dilution;
  - Even in the absence of the Whittier Narrows WRP discharge, the receiving water primarily consists of nuisance flows and other effluents, limiting its ability to assimilate additional waste;
  - Several reaches of the San Gabriel River, the Rio Hondo, and Los Angeles River [including those subject to this Order] are 303(d) listed (i.e, impaired) for certain constituents;
  - Impaired waters do not have the capacity to assimilate pollutants of concern at concentrations greater than the applicable objective;
  - For the protection of the beneficial uses, such as rare, threatened, or endangered species.
  - For the protection of warm freshwater habitat;
  - For the protection of the beneficial uses, such as estuarine habitat; marine habitat; wildlife habitat;
  - Because a mixing zone study has not been conducted; and
  - Because a hydrologic model of the discharge and the receiving water has not been conducted.
46. Specific effluent limitations for each constituent contained in this order were developed in accordance with the foregoing laws, regulations, plans, policies, and guidance. The specific methodology and example calculations are documented in the fact sheet prepared by Regional Board staff that accompanies this Order.

#### **REASONABLE POTENTIAL ANALYSIS**

47. As specified in 40 CFR section 122.44(d)(1)(i), permits are required to include limits for all pollutants "which the Director (defined as the Regional Administrator, State Director, or

authorized representative in 40 CFR section 122.2) determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.” Using the method described in the SIP, the Regional Board has conducted Reasonable Potential Analyses (RPA) using the discharger’s effluent data contained in Attachment D. The RPA compares the effluent data with water quality objectives in the Basin Plan and CTR.

- a. **Reasonable Potential Determination.** The RPA (per the SIP) involves identifying the observed maximum pollutant concentration in the effluent (MEC) for each constituent based on the effluent concentration data. There are three tiers to determining reasonable potential. If any of the following three tiers is triggered, then reasonable potential exists:
- For the first tier, the MEC is compared with the lowest applicable Water Quality Objective (WQO), which has been adjusted for pH, hardness and translator data, if appropriate. If the MEC is greater than the (adjusted) WQO, then there is reasonable potential for the constituent to cause or contribute to an excursion above the WQO and a WQBEL is required. However, if the pollutant was not detected in any of the effluent samples and all of the reported detection limits are greater than or equal to the WQO, proceed with Tier 2. The Regional Board exercised its discretion in identifying all available, valid, relevant, representative data and information in accordance with SIP Section 1.2 (page 8).
  - For the second tier, if the MEC is less than the adjusted WQO, then the observed maximum ambient background concentration (B) for the pollutant is compared with the adjusted WQO. If B is greater than the adjusted WQO, then a WQBEL is required. If B is less than the WQO, then a limit is only required under certain circumstances to protect beneficial uses. If a constituent was not detected in any of the effluent samples and all of the detection limits are greater than or equal to the adjusted WQO, then the ambient background water quality concentration is compared with the adjusted WQO. The Regional Board exercised its discretion in identifying all available, applicable ambient background data in accordance with SIP Section 1.4.3 (page 16).
  - For the third tier, other information is used to determine RPA, such as the current CWA 303(d) List. Section 1.3 of the SIP describes the type of information that can be considered in Tier 3.

For all parameters that have reasonable potential to cause or contribute to an exceedance of a WQO/criteria, numeric WQBELs are required. Section 1.4, Step 5 of the SIP (page 8) states that maximum daily effluent limitations (MDELs) shall be used for POTWs in place of average weekly limitations. WQBELs are based on CTR, USEPA water quality criteria, and Basin Plan objectives.

If the data are unavailable or insufficient to conduct an RPA for a pollutant, or if all reported detection limits of the pollutant in the effluent are greater than or equal to

the WQO, the Regional Board will establish interim requirements, in accordance with Section 2.2.2 of the SIP, that require additional monitoring for the pollutant in place of a WQBEL. Upon completion of the required monitoring, the Regional Board shall use the gathered data to conduct a RPA and determine if a WQBEL is required. However, if Tier 1 or Tier 3 triggered reasonable potential for a pollutant, then the lack of receiving water data for Tier 2 evaluation would not inhibit the establishing WQBELs in the permit.

A numeric limit has not been prescribed for a toxic constituent if it has been determined that it has no reasonable potential to cause or contribute to excursions of water quality standards. However, if the constituent had a limit in the previous permit, and if none of the Antibacksliding exceptions apply, then the limit will be retained. A narrative limit to comply with all water quality objectives is provided in *Standard Provisions* for the priority pollutants which have no available numeric criteria.

- b. **RPA Data.** The RPA was based on effluent monitoring data for July 1995 through May 2000, and interim monitoring results from July 2001 to December 2001. Table R (Attachment R) of the fact sheet summarizes the RPA, lists the constituents, and where available, the lowest, adjusted WQO, the MEC, the "Reasonable Potential" result, and the limits from the previous permit.

**Metals Water Quality Objective.** For metals, the lowest applicable Water Quality Objective (WQO) was expressed as total recoverable, and where applicable, adjusted for hardness. Hardness values from samples collected in the receiving water upstream of the discharge point were averaged and used to determine the appropriate CTR WQO for those hardness-dependent metals. For Discharge Serial No. 001, 002, and 003, hardness values from receiving water station R-11 were averaged and used for RPA. For Discharge Serial No. 004, hardness values from receiving water station RD-1 were averaged and used for RPA.

**Interim Monitoring Requirements.** In accordance with the SIP, the Regional Board may impose interim monitoring requirements upon the Discharger, so that the Discharger obtains adequate ambient, background water data for priority pollutants upstream of the discharge point as well as suitable effluent data. The Executive Officer directed the Discharger to begin an interim monitoring program for the duration of 18 months, beginning July 2001. The Discharger has been collecting samples on a monthly basis for all priority pollutants, with the exception of asbestos and 2,3,7,8-TCDD that are sampled semiannually, and reporting the results quarterly to the Regional Board. After the additional information is gathered, and prior to April 2003, Regional Board staff will conduct RPA once again, to determine if additional numeric limitations are necessary. Section 1.3, Step 8, of the SIP authorizes the Regional Board to use the gathered data to conduct RPA, as outlined in Steps 1 through 7, and determine if a water quality-based effluent limitation is required.

A reopener provision is included in this Order that allows the permit to be reopened to allow the inclusion of new numeric limitations for any constituent that

exhibits reasonable potential to cause or contribute to exceedance of applicable water quality objectives.

For some priority pollutants, the applicable water quality objectives are below the levels that current technology can measure. Section 2.4.5 of the SIP discusses how compliance will be determined in those cases. The Discharger should work with the laboratory to lower detection levels to meet applicable and reliable detection limits; follow procedures set forth in 40 CFR Part 136; and, report the status of their findings in the annual report. During the term of the permit, if and when monitoring with lowered detection limits shows any of the priority pollutants at levels exceeding the applicable WQOs, the discharger will be required to initiate source identification and control for the particular pollutant. Appendix 4 of the SIP lists the minimum levels and laboratory techniques for each constituent.

The numeric limitations contained in this Order are intended to protect and maintain existing, intermittent, and potential beneficial uses of the receiving waters. Environmental benefits provided by these limitations are reasonable and necessary.

48. The Order is consistent with State and Federal antidegradation policies in that it does not authorize a change in the quantity of wastewater discharged by the facility, nor does it authorize a change or relaxation in the manner or level of treatment. As a result, both the quantity and quality of the discharge are expected to remain the same consistent with antidegradation policies. The accompanying monitoring and reporting program requires continued data collection and if monitoring data show a reasonable potential for a constituent to cause or contribute to an exceedance of water quality standards, the permit will be reopened to incorporate appropriate WQBELs. Such an approach ensures that the discharge will adequately protect water quality standards for potential and existing uses and conforms with antidegradation policies and antidegradation provisions.
49. **Pollutant Minimization Program.** This Order provides for the use of a Pollutant Minimization Program, developed in conformance with Section 2.4.5.1 of the SIP, when there is evidence that a priority pollutant is present in the Discharger's effluent above an effluent limitation.
50. In a letter dated June 30, 2000, CSDLAC proposed a plan with a logical sequence of actions to achieve full compliance with the limits in this Order. The first phase of the plan is to investigate the sources of the high levels of contaminants in the collection system. If the sources can be identified, source reduction measures (including, when appropriate, Pollution Minimization Plans) will be instituted. At the time this Order is considered, CSDLAC is unsure whether or not all sources contributing to the high contaminant levels can be identified. Therefore, a parallel effort will be made to evaluate the appropriateness of Site Specific Objectives (SSO) and, where appropriate, Use Attainability Analyses (UAA), and modifications to and/or construction of treatment facilities. If it is determined that a SSO or UAA is necessary and appropriate, CSDLAC will submit a written request for a SSO study, accompanied by a preliminary commitment to fund the study, to the Regional Board. The Discharger will then develop a workplan and submit it to the Regional Board for approval prior to the initiation of the studies.

### **INTERIM REQUIREMENTS**

51. **Ammonia**. The 1994 Basin plan provides that to protect aquatic life, the total ammonia concentrations in receiving waters shall not exceed the objectives for the corresponding in-stream conditions given in Tables 3-1 to 3-4 of the Basin Plan. The objectives for total ammonia take into account the effect of un-ionized ammonia on aquatic habitat. Compliance with this requirement is up to 8 years following adoption of the Basin Plan. However, Order No. 95-082, the previous permit, the Discharger was granted up to eight years following the adoption of Order No. 95-082 to: (a) meet the Basin Plan objective for ammonia by making the necessary adjustments/improvements (to the Plant processes), or (b) conduct studies leading to an approved site specific objective for ammonia.

In compliance with Order No. 95-082, the Discharger developed and submitted an eight-year schedule (beginning in 1995 and ending in 2003) to achieve compliance with the ammonia, nitrite nitrogen, and nitrite plus nitrate nitrogen limitations for all POTWs in its network. Elements of the schedule included pilot studies, design, construction, and startup of a modified process for nitrification and de-nitrification (NDN).

In addition to modifying all of the POTWs with the NDN process, the Discharger is pursuing site-specific objectives (SSO) for ammonia for some of the POTWs. On December 31, 2001, the Discharger submitted a workplan for the development of ammonia SSOs through development of water effect ratios (WER). A WER adjusts the existing objective to account for site-specific conditions by measuring the actual toxicity of the site water to aquatic species in the waterbody as compared to laboratory dilution water. CSDLAC is following the requirements outlined in the Basin Plan, USEPA guidance, and as specified by the Regional Board for the development of SSOs. The need for a UAA is being assessed throughout the process as data are obtained and the SSO is developed. Regional Board staff have met with the Discharger and its consultant, Larry Walker and Associates, discussing the workplan. Regional Board approval of the workplan is pending.

52. Because there is reasonable potential, the ammonia objective, which was a receiving water quality objective in the previous permit, is a WQBEL in this Order that has to be met at the end-of-pipe, by June 14, 2002 (per the Basin Plan). The numeric limits for total ammonia applicable to the Whittier Narrows discharge are contained in Basin Plan Tables 3-2 and 3-4 (Attachment H of this Order).

This Order does not contain a statistically derived water quality based effluent limitation (WQBEL) for ammonia. Instead, the ammonia limit was taken directly from the Basin Plan Tables. This was done to prevent backsliding issues that might arise from the Ammonia Basin Plan Amendment (Resolution No. R02-011), adopted by the Regional Board on April 25, 2002. The Amendment updates the existing ammonia objectives in the 1994 Basin Plan with the 1999 USEPA criteria. The existing criteria for ammonia in the Basin Plan Tables are more stringent than the recently adopted ammonia criteria. Once the Ammonia Basin Plan Amendment has been approved by the Office of Administrative Law, and after it becomes effective, then the Regional Board will reopen the NPDES permit to update the ammonia effluent limits. At that time, WQBELs will be developed for ammonia.

53. Due to the complexity of the network of interconnected CSDLAC POTWs, the good faith efforts that CSDLAC has demonstrated (including the pilot studies completed and the process modification timelines submitted), and, the compliance date provided in Order No. 95-082, this Order is accompanied by a Time Schedule Order requiring CSDLAC to comply with the total ammonia and inorganic nitrogen limitations based on the compliance date in Order No. 97-082.
54. ***Mercury, Cyanide, and Acrylonitrile.*** Data submitted in previous self-monitoring reports indicated that these constituents have been detected in the effluent, at least once, at a concentration greater than the limits prescribed in this Order. The Whittier Narrows WRP, therefore, may not be able to achieve consistent compliance with the CTR-based final effluent limit for these constituents. CSDLAC plan to conduct studies to obtain the necessary data to develop site-specific objectives for mercury and acrylonitrile for the protection of human health from the consumption of fish and shellfish taken from the receiving waters. CSDLAC will prepare and submit a draft workplan to the Regional Board for review and approval, prior to implementing the study.
55. 40 CFR section 131.38(e) provides conditions under which interim effluent limits and compliance schedules may be issued, but the current Basin Plan does not allow inclusion of interim limits and compliance schedules in NPDES permits for effluent limits. The SIP allows inclusion of interim limits in NPDES permits for CTR-based priority pollutants. The CTR provides for a five-year maximum compliance schedule, while the SIP allows for longer, TMDL-based compliance schedule. However, the USEPA has yet to approve the longer compliance schedules. Therefore, this Order includes interim limits and compliance schedules for CTR-based priority pollutants limits for a maximum of five years, when the Discharger has been determined to have problems in meeting the new limits. This Order also includes a reopener to allow the Regional Board to grant TMDL-based compliance schedules if the USEPA approves the longer compliance schedule provisions of the SIP. For new non-CTR-based limits (ammonia nitrogen, nitrite nitrogen, nitrite plus nitrate as nitrogen, and chronic toxicity) prescribed in this Order based on Basin Plan's WQO, for which the Discharger will not be able to meet immediately, interim limits and compliance dates are provided in the accompanying Time Schedule Order.
56. In conformance with the CTR and the relevant provisions of SIP Section 2.1, the Discharger has submitted documentation that diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutants entering the POTW. In addition, the Discharger already has in place a source control and pollutant minimization approach through its existing pollutant minimization strategies and through the pretreatment program. The duration of interim requirements established in this Order was developed in coordination with Regional Board staff and the Discharger, and the proposed schedule is as short as practicable. The five-year compliance schedule is based on the maximum allowable compliance schedule. However, the Discharger anticipates it will take longer than five years to achieve the final limits.

**PUBLIC NOTIFICATION AND CEQA COMPLIANCE**

- 57. The Regional Board has notified the Discharger and interested agencies and persons of its intent to renew waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.
- 58. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.
- 59. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and shall take effect at the end of fifty days from the date of its adoption provided the Regional Administrator of USEPA has no objections.
- 60. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, California, 95812, within 30 days of adoption of the Order.
- 61. The issuance of waste discharge requirements that serve as an NPDES Permit for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 (California Environmental Quality Act) of the Public Resources Code in accordance with California Water Code Section 13389.

**IT IS HEREBY ORDERED** that the County Sanitation Districts of Los Angeles County, as operator of the Whittier Narrows Water Reclamation Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

I. DISCHARGE REQUIREMENTS

A. Effluent Limitations

- 1. Wastes discharged shall be limited to treated: municipal wastewater, groundwater from dewatering activities, and dry weather urban runoff, only, as proposed in the ROWD.
- 2. The discharge of an effluent with constituents in excess of the following limits is prohibited:
  - (a) Conventional and nonconventional pollutants for Discharge Serial Nos. 001, 002, 003, and 004:

Constituent	Units	Discharge Limitations		
		Daily Maximum <sup>[1]</sup>	7-Day Average <sup>[2]</sup>	Monthly Average
BOD <sub>5</sub> 20°C	mg/L	45	30	20
	lbs/day <sup>[3]</sup>	5,600	3,800	2,500

Constituent	Units	Discharge Limitations		
		Daily Maximum <sup>[1]</sup>	7-Day Average <sup>[2]</sup>	Monthly Average
Suspended solids	mg/L	45	40	15
	lbs/day <sup>[3]</sup>	5,600	5,000	1,900
Settleable solids	ml/L	0.3	--	0.1
Oil and grease	mg/L	15	--	10
	lbs/day <sup>[3]</sup>	1,900	--	1,300
Total residual chlorine	mg/L	0.1 <sup>[4]</sup>	--	--
Total dissolved solids	mg/L	--	--	750
	lbs/day <sup>[3]</sup>	--	--	94,000
MBAS <sup>[6]</sup>	mg/L	--	--	0.5
	lbs/day <sup>[3]</sup>	--	--	63
Chloride	mg/L			180
	lbs/day <sup>[3]</sup>	--	--	23,000
Sulfate	mg/L	--	--	300
	lbs/day <sup>[3]</sup>	--	--	38,000
Boron	mg/L	--	--	1.0
	lbs/day <sup>[3]</sup>	--	--	130
Fluoride	mg/L	--	--	1.6
	lbs/day <sup>[3]</sup>	--	--	200
Nitrite-N (as N)	mg/L	--	--	1
	lbs/day <sup>[3]</sup>	--	--	130
Total inorganic nitrogen (Nitrate + nitrite as nitrogen)	mg/L	--	--	8
	lbs/day <sup>[3]</sup>	--	--	1,000
Total ammonia	mg/L	<sup>[5]</sup>	--	<sup>[5]</sup>
	lbs/day	<sup>[3]</sup>	--	<sup>[3]</sup>

- [1] The daily maximum effluent concentration limit shall apply to both flow weighted 24-hour composite samples and grab samples, as specified in the Monitoring and Reporting Program (Attachment T).
- [2] As defined in Standard Provisions, Attachment N.
- [3] The mass emission rates are based on the plant design flow rate of 15 mgd. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.
- [4] Based on results of continuous monitoring, total residual chlorine concentration of up to 0.3 mg/L, at the point in the treatment train immediately following dechlorination, shall not be considered violations of this requirement provided the total duration of such excursions do not exceed 15 minutes during any 24-hour period. Peaks in excess of 0.3 mg/L lasting less than one minute shall not be considered a violation of this requirement.
- [5] CSDLAC must meet the total ammonia limitations contained in Attachment H, Basin Plan Tables 3-2 and 3-4, for the protection of freshwater aquatic habitat, by June 14, 2002. At a future date, these Ammonia Tables will be replaced with the 1999 USEPA Ammonia Update criteria for ammonia, according to the Ammonia Basin Plan Amendment, Resolution No. 2002-011 (adopted by the Los Angeles Regional Board on April 25, 2002). Following State Board, Office of Administrative Law, and USEPA approval of the Ammonia Basin Plan Amendment, the Regional Board will reopen this NPDES permit to revise the ammonia effluent limits using the new criteria.

- [6] Unlined reaches of the San Gabriel River downstream of the discharge points are designated with the beneficial use of groundwater recharge (GWR) in the Basin Plan. In order to protect the underlying drinking water basins, this Title 22-based limit is prescribed.
- [7] The Boron effluent limit does not apply to Discharge No. 004, because the Basin Plan (Table 3-8) does not contain a water quality objective for the Rio Hondo or any other reach of the Los Angeles River Watershed.

(b) Toxic pollutants for Discharge Serial Nos. 001, 002, 003, and 004:

CTR # <sup>[1]</sup>	Constituent	Units	Discharge Limitations	
			Monthly Average <sup>[2]</sup>	Daily Maximum
2	Arsenic <sup>[3]</sup>	µg/L	50	--
		lbs/day <sup>[4]</sup>	6.3	--
4	Cadmium <sup>[3]</sup>	µg/L	5	--
		lbs/day <sup>[4]</sup>	0.6	--
5b	Chromium VI <sup>[3]</sup>	µg/L	50	--
		lbs/day <sup>[4]</sup>	6.3	--
7	Lead <sup>[3]</sup>	µg/L	50	--
		lbs/day <sup>[4]</sup>	6.3	--
8	Mercury <sup>[3]</sup>	µg/L	0.051 <sup>[5], [6]</sup>	0.10 <sup>[5], [6]</sup>
		lbs/day <sup>[4]</sup>	0.006	0.012
9	Nickel <sup>[3]</sup>	µg/L	200	--
		lbs/day <sup>[4]</sup>	25	--
10	Selenium <sup>[3]</sup>	µg/L	10	--
		lbs/day <sup>[4]</sup>	1.3	--
11	Silver <sup>[3]</sup>	µg/L	50	--
		lbs/day <sup>[4]</sup>	6.3	--
13	Zinc <sup>[3]</sup>	µg/L	5000	--
		lbs/day <sup>[4]</sup>	630	--
14	Cyanide	µg/L	4.3 <sup>[5], [6]</sup>	8.5 <sup>[5], [6]</sup>
		lbs/day <sup>[4]</sup>	0.54	1.1
18	Acrylonitrile	µg/L	0.66 <sup>[5], [6]</sup>	1.3 <sup>[5], [6]</sup>
		lbs/day <sup>[4]</sup>	0.083	0.16
105	Lindane (gamma-BHC)	µg/L	0.2	--
		lbs/day <sup>[4]</sup>	0.03	--
115	Endrin	µg/L	2	--
		lbs/day <sup>[4]</sup>	0.3	--
126	Toxaphene	µg/L	3	--
		lbs/day <sup>[4]</sup>	0.4	--
	Barium	µg/L	1,000	--
		lbs/day <sup>[4]</sup>	130	--
	Iron	µg/L	300	--
		lbs/day <sup>[4]</sup>	38	--
	Methoxychlor	µg/L	40	--
		lbs/day <sup>[4]</sup>	5	--

CTR # <sup>[1]</sup>	Constituent	Units	Discharge Limitations	
			Monthly Average <sup>[2]</sup>	Daily Maximum
	2,4-D	µg/L	100	--
		lbs/day <sup>[4]</sup>	13	--
	2,4,5-TP (Silvex)	µg/L	10	--
		lbs/day <sup>[4]</sup>	1.3	--

[1] This number corresponds to the compound number found in Table 1 of CTR. It is simply the order in which the 126 priority pollutants were listed in 40 CFR section 131.38 (b)(1).

[2] Compliance may be determined from a single analysis or from the average of the initial analysis and three additional analyses within the month taken one week apart after the results of the initial analysis are obtained.

[3] Concentration expressed as total recoverable.

[4] The mass emission rates are based on the plant design flow rate of 15 mgd. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

[5] For priority pollutants, Section 2.4.5 of CTR *Compliance Determination*, reads, "Dischargers shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported ML."

[6] This effluent limitation will not be in effect until July 10, 2007, and until that time the Discharger shall comply with the interim limits established in I.A.(9) below.

3. The pH of wastes discharged shall at all times be within the range of 6.5 to 8.5.

4. The temperature of wastes discharged shall not exceed 100°F.

5. Pursuant to 40 CFR sections 133.102(a)(3) and 133.102(b)(3), the 30-day average percent removal by weight for BOD and total suspended solids shall not be less than 85 percent. Percent removal is defined as a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations.

6. Radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Section 64443, of the California Code of Regulations, or subsequent revisions.

7. The wastes discharged to water courses shall at all times be adequately disinfected. For the purpose of this requirement, the wastes shall be considered adequately disinfected if the median number of coliform organisms at some point in the treatment process does not exceed 2.2 per 100 milliliters, and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last seven (7) days for which an analysis has been

completed. Samples shall be collected at a time when wastewater flow and characteristics are most demanding on treatment facilities and disinfection processes.

8. For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed: (a) a daily average of 2 Nephelometric turbidity units (NTUs); and (b) 5 NTUs more than 5 percent of the time (72 minutes) during any 24 hour period.

9. Interim Effluent Limitations

- a. The Discharger shall comply immediately with the following interim effluent limit until May 7, 2007. Thereafter, the Discharger shall comply with the limitations specified in Section I.A.2.b. of this Order:

Constituent	Units	Monthly Average **
Lead	µg/L	10
Mercury	µg/L	2
Cyanide	µg/L	5.2
Acrylonitrile	µg/L	1.1

\*\* Interim effluent limits were derived statistically at 95% confidence level for monthly averages and at the 99% confidence level for the daily maximum interim limits. Effluent performance data from July 1995 through December 2001 and the *Plimit*<sup>TM</sup> program, which is based on Appendix E of the TSD, were used to calculate the interim limits. Effluent values (x<sub>i</sub>) are assumed to be lognormally distributed for data sets containing all detects, and delta log-normally distributed for data sets containing detects and non-detects. If there were insufficient data to calculate an interim limit, the monthly average interim limit was set as the maximum effluent concentration detected, in accordance with SIP section 2.2.1 which reads, "Numeric interim limitations for the pollutant must be based on current treatment facility performance or on existing permit limitations, whichever is more stringent."

- b. The Discharger shall submit quarterly progress reports (January 15, April 15, July 15 and October 15) to describe the progress of studies and/or actions undertaken to reduce these compounds in the effluent, and to achieve compliance with the limits in this Order by the above-mentioned deadline. The first progress report shall be received at the Regional board by October 15, 2002.
10. To protect underlying ground water basins, pollutants shall not be present in the wastes discharged at levels that pose a threat to ground water quality.

11. Acute Toxicity Limitation:

- a. The acute toxicity of the effluent shall be such that: (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70% survival.

- b. If either of the above requirements (10.a.i or 10.a.ii) is not met, the Discharger shall conduct six additional tests over a six-week period. The Discharger shall ensure that results of a failing acute toxicity test are received by the Discharger within 24 hours of completion of the test and the additional tests shall begin within 3 business days of receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.
- c. If the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately implement Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.
- d. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program (MRP) No. 2848.

12. Chronic Toxicity Limitation and Requirements:

- a. The chronic toxicity of the effluent shall be expressed and reported in toxic units, where:
$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.
- b. Chronic toxicity of 100% effluent shall not exceed a monthly median of 1.0  $TU_c$  or a daily maximum of 1.0  $TU_c$  in a critical life stage test.
- c. If the chronic toxicity of the effluent exceeds the monthly median of 1.0  $TU_c$ , the Discharger shall immediately implement accelerated chronic toxicity testing according to MRP No. 2848, Section IV.D.2.e. If any three out of the initial test and the six accelerated tests results exceed 1.0  $TU_c$ , the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan, as specified in the following section of this Order (Section I.A.13).
- d. The Discharger shall conduct chronic toxicity monitoring as specified in MRP No. 2848.

13. Preparation of an Initial Investigation TRE Workplan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. If the Regional Board Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Discharger shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

- i. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;
- ii. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the facility; and,
- iii. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor). See MRP Section VI.D.3.c.iii for guidance manuals.

B. Receiving Water Limitations

1. For waters designated with a warm freshwater habitat (WARM) beneficial use, the temperature of the receiving water at any time or place and within any given 24-hour period shall not be altered by more than 5°F above the natural temperature (or above 70°F if the ambient receiving water temperature is less than 60 °F) due to the discharge of effluent at the receiving water station located downstream of the discharge. Natural conditions shall be determined on a case-by-case basis.
2. The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of wastes discharged. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of wastes discharged. Natural conditions shall be determined on a case-by-case basis.
3. The dissolved oxygen in the receiving water shall not be depressed below 5 mg/L as a result of the wastes discharged.
4. The fecal coliform concentration in the receiving water shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10% of total samples during any 30-day period exceed 400/100 ml as a result of the wastes discharged.
5. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attributable to controllable

water quality factors shall not exceed the following limits, as a result of wastes discharged:

- a. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%, and
  - b. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.
6. The wastes discharged shall not produce concentrations of toxic substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life.
  7. The wastes discharged shall not contain radionuclides in concentrations that are deleterious to human, plant, animal, or aquatic life, or that result in accumulation of radionuclides in the food web to an extent that present a hazard to human, plant, animal, or aquatic life.
  8. The concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect beneficial uses as a result of the wastes discharged.
  9. The wastes discharged shall not contain substances that result in increases in BOD which adversely affect the beneficial uses of the receiving waters.
  10. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
  11. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.
  12. The wastes discharged shall not alter the natural taste, odor, and color of fish, shellfish, or other surface water resources used for human consumption.
  13. The wastes discharged shall not result in problems due to breeding of mosquitoes, gnats, black flies, midges, or other pests.
  14. The wastes discharged shall not result in visible floating particulates, foams, and oil and grease in the receiving waters.
  15. The wastes discharged shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; nor cause aesthetically undesirable discoloration of the receiving waters.
  16. The wastes discharged shall not contain any individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses of the receiving waters. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life as a result of the wastes discharged.

C. Chronic Toxicity Receiving Water Quality Objective

1. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.
2. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.
3. If the chronic toxicity of receiving waters, at the receiving water station located immediately downstream of the discharge, exceeds the monthly median of 1.0 TU<sub>c</sub>, the Discharger shall immediately implement accelerated chronic toxicity testing according to MRP No. 2848, Section IV.D.2.e. If any three out of the initial test and the six accelerated tests results exceed 1.0 TU<sub>c</sub>, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan, as specified in the following section of this Order (Section I.A.13).
4. The Discharger shall conduct chronic toxicity monitoring as specified in MRP No. 2848.

II. Pollutant Minimization Plan

Compliance with effluent limitations shall be determined as follows:

1. Dischargers shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported minimum level (ML).
2. The Discharger shall develop and conduct a Pollutant Minimization Program (PMP), in accordance with Section 2.4.5.1., of the SIP, if all of the following conditions are true, and shall submit the PMP to the Regional Board within 120 days of determining the conditions are true:
  - a. when there is evidence that the priority pollutant is present in the effluent above an effluent limitation and either:
  - b. A sample result is reported as detected but not quantified (DNQ) and the effluent limitation is less than the reported ML; or,
  - c. A sample result is reported as nondetect (ND) and the effluent limitation is less than the MDL.

Examples of evidence that the priority pollutant is present in the effluent above an effluent limitation are:

- sample results reported as DNQ when the effluent limitation is less than the method detection limit (MDL);
- sample results from analytical methods more sensitive than those methods

- included in the permit in accordance with Sections 2.4.2 or 2.4.3;
- presence of whole effluent toxicity;
- health advisories for fish consumption; or,
- results of benthic or aquatic organism tissue sampling.

If a sample result, or the arithmetic mean or median of multiple sample results, is below the reported ML, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the discharger conducts a PMP (as described in Section 2.4.5.1 of the SIP), the discharger shall not be deemed out of compliance.

The goal of the PMP is to reduce all potential sources of a priority pollutant(s) through pollution minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the WQBEL.

### III. SLUDGE REQUIREMENTS

- A. For biosolids management, the Discharger must comply with all requirements of 40 CFR sections 257, 258, 501, and 503, including all monitoring, recordkeeping, and reporting requirements.
- B. Since the State of California, hence the Regional Board, has not been delegated the authority to implement the sludge program, enforcement of the sludge requirements contained in this Order and permit shall be the sole responsibility of USEPA.

### IV. PRETREATMENT REQUIREMENTS

- A. This Order includes the Discharger's pretreatment program as previously submitted to this Regional Board. Modifications to the program shall be reported to the Regional Board and USEPA in writing and shall not become effective until approved by the Executive Officer and the USEPA Regional Administrator in accordance with procedures established in 40 CFR 403.18.
- B. The Discharger shall implement and enforce its approved pretreatment program. The Discharger shall be responsible and liable for the performance of all pretreatment requirements contained in Federal Regulations 40 CFR Part 403, including subsequent regulatory revisions thereof. Where Part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within six months from the effective date of this Order or the effective date of the Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines, and other remedies by the Regional Board, USEPA, or other appropriate parties, as provided in the Federal Clean Water Act. The Regional Board or USEPA may initiate enforcement action against an industrial user for non-

compliance with acceptable standards and requirements as provided in the Federal Clean Water Act and/or the California Water Code.

- C. The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Clean Water Act. The Discharger shall require industrial users to comply with Federal Categorical Standards and shall implement enforcement actions against those users that do not comply with the Standards. The Discharger shall require industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, as required in 40 CFR 403.6(b).
- D. The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not be limited to:
  - (1) Implement the necessary legal authorities as provided in 40 CFR 403.8 (f) (1);
  - (2) Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
  - (3) Implement the programmatic functions as provided in 40 CFR 403.8 (f) (2); and
  - (4) Provide the requisite funding of personnel to implement the pretreatment program as provided in 40 CFR 403.8 (f) (3).
- E. The Discharger shall submit annually a report to the Regional Board, the SWRCB, and the USEPA Region 9, describing the Discharger's pretreatment activities over the previous calendar year. In the event the Discharger is not in compliance with any conditions or requirements of this permit, the Discharger will also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements. This annual report is due at the Regional Board Office on April 15 of each year and shall contain, but not be limited to, the information required in the attached "Pretreatment Reporting Requirements (Attachment P) or approved revised version thereof.

V. REQUIREMENTS AND PROVISIONS

- A. This Order includes the attached *Standard Provisions and General Monitoring and Reporting Requirements (Standard Provisions)* (Attachment N). If there is any conflict between provisions stated herein and the Standard Provisions, those provisions stated herein prevail. Conditions pertaining to bypass are contained in Standard Provisions sections B.13, B.20, and B.23, G.1. The bypass or overflow of untreated or partially treated wastewater to waters of the State is prohibited, except as allowed under conditions stated in 40 CFR section 122.41(m)(4) and (n). Consistent with those provisions, during periods of elevated, wet-weather flows, the operational diversion of secondarily treated wastewater around the tertiary filters is allowable provided that the combined discharge of fully treated and partially treated wastewater complies with the effluent and receiving water limitations in this Order.

- B. This Order includes the attached *Monitoring and Reporting Program* (Attachment T). If there is any conflict between provisions stated in Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the former prevail.
- C. The Discharger shall comply with the requirements of the State Board's General NPDES Permit No. CAS000001 and *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities* (Order No. 97-03-DWQ) by continuing to implement a SWPPP and conducting the required monitoring.
- D. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of a plant upset or outage due to power failure or other causes, the discharge of raw or inadequately treated sewage does not occur.
- E. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
- F. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic, and pretreatment effluent standards, and all federal regulations established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the Federal Clean Water Act and amendments thereto.
- G. The Discharger may conduct studies to obtain data in support of developing site-specific objectives for mercury and acrylonitrile for the protection of human health from consumption of organisms. In such event, the Discharger shall submit to the Regional Board a detailed workplan for these studies by June 27, 2003; however, the Executive Officer may extend the due date for this workplan by a period not to exceed six months. The workplan shall provide a schedule consistent with Effluent limitation A.9.a. for the development and adoption of site specific objectives for mercury and acrylonitrile.
- H. The Discharger shall prepare and submit a workplan or an inter agency agreement between CSDLAC and the Los Angeles County Department of Public Works (LACDPW) to minimize fish kill incidents in the receiving water, as a result of discontinued discharges from a CSDLAC discharge point, for scheduled LACDPW streambed maintenance activities.
- I. This Order may be reopened and modified to revise Title 22-based effluent limitations as appropriate, if the Discharger conducts studies to gather data which demonstrates, to the satisfaction of the Regional Board, that dilution/attenuation is appropriate.

VI. REOPENERS AND MODIFICATIONS

- A. This Order may be reopened and modified, in accordance with SIP Section 2.2.2.A, to incorporate new limits based on future reasonable potential analysis to be conducted, upon completion of the collection of additional data by the Discharger. Notwithstanding the foregoing, in the event that reasonable potential analyses indicate that a pollutant has reasonable potential, the Regional Board staff shall bring an appropriate modification to the Regional Board, at the next practicable Board meeting.
- B. This Order may be reopened and modified to incorporate, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, the proposed watershed monitoring program.
- C. This Order may be modified, in accordance with the provisions set forth in 40 CFR sections 122 and 124, to include new MLs.
- D. This Order may be modified, in accordance with the provisions set forth in 40 CFR sections 122.44(d)(1)(vi)(C)(4), if the limits on the indicator parameter (total nitrogen) no longer attain and maintain applicable water quality standards.
- E. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of the Ammonia objective, or the adoption of a TMDL for San Gabriel River Watershed.
- F. This Order may be reopened and modified to include TMDL-based compliance schedules, upon a proper demonstration by the Discharger and developed in accordance with section 2.1 of the SIP, if and when the USEPA approves the TMDL-based compliance schedules provision of the SIP.
- G. This Order may be reopened and modified, to revise the toxicity language once that language becomes standardized.
- H. This Order may also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this order and permit, endangerment to human health or the environment resulting from the permitted activity.

VII. EXPIRATION DATE

This Order expires on July 10, 2007.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

VIII. RESCISSION

Order No. 95-082, adopted by this Regional Board on June 12, 1995, is hereby rescinded, except for enforcement purposes.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on August 29, 2002.

ORIGINAL SIGNED BY

Dennis A. Dickerson  
Executive Officer

ATTACHMENT 1  
MAP

ATTACHMENT 2  
WASTEWATER PROCESS DIAGRAM

ATTACHMENT 3  
RECEIVING WATER STATION MAP