State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 West 4th Street, Suite 200, Los Angeles

FACT SHEET

WASTE DISCHARGE REQUIREMENTS FOR COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (Valencia Water Reclamation Plant)

NPDES No. CA0054216
Public Notice No.: 03-059

PLANT ADDRESS
Valencia Water Reclamation Plant
28185 The Old Road
Valencia, California

MAILING ADDRESS
County Sanitation Districts of
Los Angeles County
P.O. Box 4998
Whittier, CA 90607-4998

Contact Person: Victoria O. Conway
Title: Supervising Engineer
Treatment Plant Monitoring Section
Phone No.: 562-699-7411, Ext. 2801

I. PUBLIC PARTICIPATION

1. The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the above-referenced plant. As an initial step in the WDR process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Public Comment Period

Interested persons are invited to submit written comments on the tentative WDRs for the County Sanitation Districts of Los Angeles County (CSDLAC or Discharger), Valencia Water Reclamation Plant. Comments should be submitted either in person or by mail to:

EXECUTIVE OFFICER
California Regional Water Quality Control Board, Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
ATTN: Veronica Cuevas

To be fully responded to by staff and considered by the Regional Board, written comments should be received by 5:00 p.m. on October 21, 2003.

B. Public Hearing

The Regional Board will consider the tentative WDRs and NPDES permit during a public hearing on the following date, time and place:

Date:	November 6, 2003
Time:	9:00 a.m.
Location:	Metropolitan Water District of Southern California Board Room 700 North Alameda Street Los Angeles, California

Interested parties and persons are invited to attend. At the public hearing, the Regional Board will hear testimony, if any, pertinent to the waste discharge that will be regulated and the proposed WDRs and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is www.swrcb.ca.gov/rqcb4 where you can access the current agenda for changes in dates and locations.

C. Information and Copying

Copies of the tentative WDRs and NPDES permit, report of waste discharge, Fact Sheet, comments received, and other documents relative to this tentative WDRs and permit are available at the Regional Board office. Inspection and/or copying of these documents are by appointment scheduled between 8:00 a.m. and 4:50 p.m., Monday through Friday, excluding holidays. For appointment, please call the Los Angeles Regional Board at (213) 576-6600.

D. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding this NPDES permit should contact the Regional Board, reference this facility, and provide a name, address, and phone number.

E. Waste Discharge Requirements Appeals

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
ATTN: Elizabeth Miller Jennings
P.O. Box 100
Sacramento, CA 95812

II. PURPOSE OF ORDER

The CSDLAC discharges tertiary-treated municipal wastewater from the Valencia Water Reclamation Plant (Valencia WRP) under waste discharge requirements contained in Order No. 95-081, adopted by this Regional Board on June 12, 1995. This Order serves as the permit under the National Pollutant Discharge Elimination System program (NPDES No. CA0054097). The Discharger's permit was administratively extended beyond the May 10, 2000 expiration date. The CSDLAC has filed a timely report of waste discharge and has applied for renewal of its WDRs and NPDES permit. The proposed WDRs and NPDES permit will expire on October 10, 2008.

III. DESCRIPTION OF FACILITY

1. The CSDLAC owns and operates the Valencia WRP, a publicly owned treatment work (POTW). The Valencia WRP is a tertiary treatment facility located at 28185 The Old Road, Valencia, California. The plant has a design capacity of 12.6 million gallons per day (mgd), but only discharges an average of 12.35 mgd (the Year 2002) of tertiary treated municipal wastewater to the Santa Clara River, at Valencia, California. The Valencia WRP is a part of CSDLAC's regional system, known as the Santa Clarita Valley Joint Sewerage System, which also includes the Saugus Water Reclamation Plant (Saugus WRP). The regional system allows biosolids, solids, and excess flows from the Saugus WRP to be diverted to the Valencia WRP for treatment and disposal. Figure 1 shows the vicinity map for the Valencia WRP.

2. The Valencia WRP serves a population of approximately 84,922 in the Santa Clarita Valley. Flow to the plant consists of domestic, commercial and industrial wastewater. For fiscal year 2002, industrial wastewater represented only about 2.4% of the total flow to the plant. Discharges to the collection system from industry include discharges from metal finishers and electrical component manufacturers.

3. The United States Environmental Protection Agency (USEPA) and the Regional Board have classified the Valencia WRP as a major discharger. It has a Threat to Water Quality and Complexity rating of 1-A pursuant to Section 2200, Title 23, CCR.

4. Pursuant to 40 CFR, Part 403, the Valencia WRP developed, and has been implementing, an industrial wastewater Pretreatment Program, which has been approved by USEPA and the Regional Board.

5. The treatment system at the Valencia WRP currently consists of comminution, grit removal, primary sedimentation, nitrification/ denitrification (NDN) activated sludge biological treatment, secondary clarification, inert media filtration, chlorination, and dechlorination (sodium bisulfite). Waste activated sludge is concentrated by dissolved

air flotation, blended with primary sludge, and anaerobically digested. The digested solids are thickened using a filter press. Dried solids are trucked away offsite either to a landfill or to a site for land application. Figure 2 shows the schematic of wastewater flow.

A. ***Comminution*** - Comminution used in the wastewater treatment plant is to remove coarse solids, which are typical wood, plastic materials, and rags.

B. ***Grit removal*** - Grit removal is used to remove as much sand and silt as possible to prevent wear on pumps, accumulations in aeration tanks, clarifiers, and digesters, and clogging of sludge piping.

C. ***Primary sedimentation*** - The main objective of primary sedimentation is to remove solids from the wastewater by gravity. The heavier solids (settleable solids) precipitate out and are scraped out of the primary sedimentation basin. The lighter solids float to the top and are skimmed off. However, some solids remain in suspension.

D. ***Activated sludge*** - The NDN activated sludge treatment system in which the incoming wastewater is mixed with existing biological floc (microorganisms, bugs, or activated sludge) is processed in an aeration basin. Activated sludge converts non-settleable and dissolved organic contaminants into biological floc, which can then be removed from the wastewater with further treatment.

E. ***Secondary sedimentation with coagulation*** - The main objective of secondary sedimentation is to remove biological floc from the wastewater. Chemicals, such as aluminum sulfate (alum), may be added as part of the treatment process to enhance solids removal. Alum causes the biological floc to combine into larger clumps (coagulate). This makes it easier to remove the floc.

F. ***Inert media filtration*** - The filtration process is used to remove or reduce suspended or colloidal matter from a liquid stream, by passing the water through a bed of graded granular material. Filters remove the solids that the secondary sedimentation process did not remove, thus, improving the disinfection efficiency and reliability.

G. ***Chlorination*** - Sodium hypochlorite is used as a disinfectant in the Valencia WRP. Disinfectant is added to the treated effluent prior to the filters to destroy bacteria, pathogens and viruses, and to minimize algal growth in the filters. Additional disinfectant may be dosed prior to the chlorine contact tank.

H. ***Dechlorination*** - Sulfur dioxide is added to neutralize the chlorine prior to the treated water discharged to the Santa Clara River.

6. As part of its phased plant upgrade and expansion project, and in order to achieve compliance with the ammonia Basin Plan objectives, CSDLAC began construction of NDN treatment facilities at the Valencia WRP on December 2002. Since the time of the last permit renewal, CSDLAC has also completed the following tasks:

Task	Completion Date
Completed construction of an additional aeration tank and final sedimentation tank, increasing capacity from 11 MGD to 12.6 MGD	June 1996
Improved sodium hypochlorite and bisulfite facilities	February 1997
Replaced diesel fuel facilities for the plant generators	November 1999
Expanded solids processing facilities by constructing two new digesters and expanding filter presses	2002
Finished NDN construction for 12.6 MGD capacity	June 18, 2003

Stage V of the expansion project, which began in August 2001, will incrementally increase the plant's design capacity from 12.6 to 21.6 MGD and will add three new NDN aeration units. Construction is scheduled for completion in fall 2004.

7. CSDLAC prepared a Final Environmental Impact Report (FEIR) and a Final Supplemental Environmental Impact Report (FSEIR) in accordance with the California Environmental Quality Act (Public Resource Code Section 21000 et seq.). The FSEIR addressed potential effects of the discharge on downstream surface waters, groundwaters, and flooding. On January 1998, CSDLAC's Board of Directors certified the EIR.

8. The treated effluent is also regulated under Water Recycling Requirements (WRRs) contained in Order No. 87-48, adopted by this Board on April 27, 1987. The WRRs were re-adopted on May 12, 1997, by Board Order No. 97-072.. The Castaic Lake Water Agency plans to deliver reclaimed water to various sites, for landscape irrigation, beginning in the Fall 2003.

9. ***Storm Water Management*** **-** CSDLAC currently does not treat storm water runoff at the Valencia WRP except for incidental storm water infiltration and inflows in the sewer and storm water 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.

IV. DISCHARGE OUTFALL AND RECEIVING WATER DESCRIPTION

1. The Valencia WRP discharges tertiary treated municipal and industrial wastewater to Reach 5 of Santa Clara River through Discharge Serial No. 001 (Latitude 34°25'47" North, Longitude 118°35'27" West). The Discharge Serial No. 001 in Figure 1 is located downstream of Francisquito Creek and upstream of Castaic Creek.

   CSDLAC has requested permission to discharge tertiary treated effluent to the Santa Clara River through a second discharge point (Discharge Serial No. 002, approximate location: latitude 34°25'47" North, longitude 118°35'27" West), located approximately 170 feet upstream from Discharge Serial No. 001. Discharge through Discharge Serial No. 002 would take place during extreme wet weather events when it would not be possible to discharge through Discharge Serial No. 001.

2. The Santa Clara River is one of the largest river systems in southern California. The River originates in the northern slope of the Santa Clara Mountains in Los Angeles County, traverses Ventura County, and flows into the Pacific Ocean, halfway between the cities of San Buenaventura and Oxnard.

3. Extensive patches of riparian habitat are present along the length of the river and its tributaries. The endangered fish, the unarmored stickleback, is resident in the River. One of the largest of the Santa Clara River's tributaries, Sespe Creek, is designated as a wild trout stream by the state of California and supports significant spawning and rearing habitat. The Sespe Creek is also designated a wild and scenic river. Piru and Santa Paula Creeks, which are tributaries to the Santa Clara River, support habitat for steelhead. In addition, the River serves as an important wildlife corridor. A lagoon exists at the mouth of the river and supports a large variety of wildlife.

V. QUALITY DESCRIPTION

1. From June 1995 to December 2002, the Discharger's discharge monitoring reports showed the following:

   A. Treated wastewater average annual effluent flow rate of 10.39 mgd.

   B. Average annual removal rate of 98% and >99%, of BOD and total suspended solids, respectively.

   C. 7-day median and daily maximum coliform values as <1 coliform forming units (CFU)/ 100 ml in the treated wastewater.

2. The characteristics of the treated wastewater discharged, based on data submitted in the 2002 Annual summary discharge monitoring report, are as follows in Table 1. The "<" symbol indicates that the pollutant was not detected (ND) at that concentration level. We do not know if the pollutant was present at a lower concentration.

Table 1 - 2002 Annual Summary Effluent Monitoring Summary

CTR#	Constituent	Unit	Average	Maximum	Minimum
	Flow	mgd	12.35	13.17	11.63
	pH	pH units	7.2	7.3	7.2
	Temperature- winter (Nov. – April) summer(May – Oct.)	°F °F	73 winter 79 summer	77 81	71 75
	$BOD_{5@20°C}$	mg/L	9	14	4
	Suspended solids	mg/L	3	4	<2
	Settleable solids	ml/L	<0.1	<0.1	<0.1
	Total dissolved solids	mg/L	802	853	698
	Chloride	mg/L	187	208	165
	Sulfate	mg/L	175	205	140
	Boron	mg/L	0.8	0.93	0.74

Table 1 - 2002 Annual Summary Effluent Monitoring Summary					
CTR#	Constituent	Unit	Average	Maximum	Minimum
	Total Phosphate	mg/L	<0.5	<0.5	<0.5
	Turbidity (24-HR composite)	NTU	1.4	1.7	1.0
	Oil and grease	mg/L	<4-<5	<5	<4
	Fluoride	mg/L	0.37	0.48	0.29
	MBAS	mg/L	0.1	0.2	0.1
	Residual Chlorine (Dechlorinated)	mg/L	<0.1	<0.1	<0.1
	Total Coliform	CFU /100mL	<1	<1	<1
	Ammonia-N	mg/L	22.1	26.9	17.1
	Organic-N	mg/L	0.8	1.1	0.3
	Nitrate-N	mg/L	1.9	4.61	0.1
	Nitrite-N	mg/L	2.89	3.78	1.96
	Total Nitrogen	mg/L	27.7	32.8	23.9
	Boron	mg/L	0.8	0.93	0.74
	Iron	mg/L	0.1	0.11	0.09
1	Antimony	µg/L	1.4	3.7	0.7
2	Arsenic	µg/L	<1-1.3	1.3	<1
3	Beryllium	µg/L	<0.5	<0.5	<0.5
4	Cadmium	µg/L	<0.4	<0.4	<0.4
5a	Chromium III				
5b	Chromium VI				
	Total Chromium	µg/L	<10	<10	<10
6	Copper	µg/L	<8	<8	<8
7	Lead	µg/L	<2-2	2	<2
8	Mercury	µg/L	<0.1-<0.04	0.1	<0.04
9	Nickel	µg/L	<20	<20	<20
10	Selenium	µg/L	<1	<1	<1
11	Silver	µg/L	0.065-0.35	0.35	0.065
12	Thallium	µg/L	<1	<1	<1
13	Zinc	µg/L	30	60	20
14	Cyanide	µg/L	<5-<14	<14	<5
16	2,3,7,8-TCDD (Dioxin)	µg/L	<0.00066-<0.0043	<0.0043	<0.00066
17	Acrolein	µg/L	<2-<10	<10	<2
18	Acrylonitrile	µg/L	<2-<5	<5	<2
19	Benzene	µg/L	< 0.5	< 0.5	< 0.5
20	Bromoform	µg/L	<0.5-1.9	1.9	<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	<0.9	1.1	<0.5
24	Chloroethane	µg/L	<0.5	<0.5	<0.5
25	2-Chloroethylvinyl ether	µg/L	<0.5	<0.5	<0.5
26	Chloroform	µg/L	3	3.8	1.5
27	Bromodichloromethane	µg/L	<0.5-6	0.6	<0.5
28	1,1-Dichloroethane	µg/L	<0.5	<0.5	< 0.5
29	1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5

Table 1 - 2002 Annual Summary Effluent Monitoring Summary					
CTR#	Constituent	Unit	Average	Maximum	Minimum
30	1,1-Dichloroethylene	µg/L	<0.5	<0.5	< 0.5
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	<0.5	<0.5	<0.5
34	Methyl bromide (Bromomethane)	µg/L	<0.5-<1	<1	< 0.5
35	Methyl chloride (Chloromethane)	µg/L	<0.5	<0.5	< 0.5
36	Methylene chloride	µg/L	<0.5-0.6	0.6	<0.5
37	1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	< 0.5
38	Tetrachloroethylene	µg/L	<0.5	<0.5	<0.5
39	Toluene	µg/L	<0.5	<0.5	< 0.5
40	1,2-Trans-dichloroethylene	µg/L	<0.5	<0.5	<0.5
41	1,1,1-Trichloroethane	µg/L	<0.5	<0.5	< 0.5
42	1,1,2-Trichloroethane	µg/L	<0.5	<0.5	<0.5
43	Trichloroethylene	µg/L	<0.5	<0.5	< 0.5
44	Vinyl chloride	µg/L	<0.5	<0.5	<0.5
45	2-Chlorophenol	µg/L	<1-<5	<5	<1
46	2,4-Dichlorophenol	µg/L	<1-<5	<5	<1
47	2,4-Dimethylphenol	µg/L	<2	<2	<2
48	2-Methyl-4,6-dinitrophenol	µg/L	<5	<5	<5
49	2,4-Dinitrophenol	µg/L	<5	<5	<5
50	2-Nitrophenol	µg/L	<1-<10	<10	<1
51	4-Nitrophenol	µg/L	<1-<10	<10	<1
52	3-Methyl-4-chlorophenol	µg/L	<1	<1	<1
53	Pentachlorophenol	µg/L	<1-<5	<5	<1
54	Phenol	µg/L	<1	<1	<1
55	2,4,6-Trichlorophenol	µg/L	<1-<10	<10	<1
56	Acenaphthene	µg/L	<1-<10	<10	<1
57	Acenaphthylene	µg/L	<1-<10	<10	<1
58	Anthracene	µg/L	<1-<10	<10	<1
59	Benzidine	µg/L	<5	<5	<5
60	Benzo[a]anthracene	µg/L	<1-<5	<5	<1
61	Benzo[a]pyrene	µg/L	<0.0031-<0.0059	0.0059	<0.0031
62	Benzo[b]fluoranthene	µg/L	<0.0031-<0.0104	0.0104	<0.0031
63	Benzo[g,h,I]perylene	µg/L	<1-<5	<5	<1
64	Benzo[k]fluoranthene	µg/L	0.0088-<0.0031	0.0088	<0.0031
65	Bis(2-chloroethoxy)methane	µg/L	<1-<5	<5	<1
66	Bis(2-chloroethyl)ether	µg/L	<1	<1	<1
67	Bis(2-chloroisopropyl)ether	µg/L	<1-<2	<2	<1
68	Bis(2-ethylhexyl)phthalate	µg/L	<1-<5	<5	<1
69	4-Bromophenyl phenyl ether	µg/L	<1-<5	<5	<1
70	Butylbenzyl phthalate	µg/L	<1-<10	<10	<1
71	2-Chloronaphthalene	µg/L	<1-<10	<10	<1
72	4-Chlorophenyl phenyl ether	µg/L	<1-<5	<5	<1
73	Chrysene	µg/L	<0.0031-<0.0056	0.0056	<0.0031

Table 1 - 2002 Annual Summary Effluent Monitoring Summary					
CTR#	Constituent	Unit	Average	Maximum	Minimum
74	Dibenzo[a,h]anthracene	µg/L	<0.006-0.014	0.014	<0.006
75	1,2-Dichlorobenzene	µg/L	<1-<2	<2	<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	<5	<5	<5
79	Diethyl phthalate	µg/L	<1-<2	<2	<1
80	Dimethyl phthalate	µg/L	<1-<2	<2	<1
81	Di-n-butyl phthalate	µg/L	<1-<10	<10	<1
82	2,4-Dinitrotoluene	µg/L	<1-<5	<5	<1
83	2,6-Dinitrotoluene	µg/L	<1-<5	<5	<1
84	Di-n-octyl phthalate	µg/L	<1-<10	<10	<1
85	1,2-Diphenylhydrazine	µg/L	<1	<1	<1
86	Fluoranthene	µg/L	<1	<1	<1
87	Fluorene	µg/L	<1-<10	<10	<1
88	Hexachlorobenzene	µg/L	<1	<1	<1
89	Hexachlorobutadiene	µg/L	<1	<1	<1
90	Hexachlorocyclopentadiene	µg/L	<5	<5	<5
91	Hexachloroethane	µg/L	<1	<1	<1
92	Indeno[1,2,3-cd]pyrene	µg/L	<0.006-0.016	0.016	<0.006
93	Isophorone	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-<5	<5	<1
97	N-Nitrosodi-n-propylamine	µg/L	<1-<5	<5	<1
98	N-Nitrosodiphenylamine	µg/L	<1	<1	<1
99	Phenanthrene	µg/L	<1-<5	<5	<1
100	Pyrene	µg/L	<1-<10	<10	<1
101	1,2,4-Trichlorobenzene	µg/L	<1-<5	<5	<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	<0.01-0.01	0.01	<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

Table 1 - 2002 Annual Summary Effluent Monitoring Summary					
CTR#	Constituent	Unit	Average	Maximum	Minimum
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
	Methoxychlor	µg/L	<0.01	<0.01	<0.01
	2,4-D	µg/L	<2-<2.2	<2.2	<2
	2,4,5-TP	µg/L	<0.5-<0.54	<0.54	<0.5

3. The Discharger's effluent demonstrated chronic toxicity during the last permit cycle. Based on this information, the Regional Board has determined that there is a reasonable potential that the discharge will cause toxicity in the receiving water. However, the circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential were under review by the State Water Resources Control Board (State Board) in SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, at a public hearing, the State Board adopted Order No. WQO 2003-0012, deferring the issue of numeric chronic toxicity effluent limitations until Phase II of the SIP is adopted. In the mean time, the State Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. This permit contains a similar chronic toxicity effluent limitation. This Order also contains a reopener to allow the Regional Board to modify the permit, if necessary, consistent with any new policy, law, or regulation.

VI. APPLICABLE LAWS, PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities contained in the following:

1. ***Federal Clean Water Act* -** Section 301(a) of the federal Clean Water Act (CWA) requires that point source discharges of pollutants to a water of the United States must be done in conformance with a NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality. CWA section 402 authorizes the USEPA or States with an approved NPDES program to issue NPDES permits. The State of California has an approved NPDES program.

2. ***Basin Plan* -** The Regional Board adopted a revised *Water Quality Control Plan for the Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) on June 13, 1994, and amended by various Regional Board resolutions. This updated and consolidated plan represents the Board's master

quality control planning document and regulations. The State Water Resources Control Board (State Board) and the State of California Office of Administrative Law (OAL) approved the revised Basin Plan on November 17, 1994, and February 23, 1995, respectively. On May 26, 2000, the USEPA approved the revised Basin Plan except for the implementation plan for potential municipal and domestic supply (MUN) designated water bodies, which is not applicable to this discharge.

The 1994 Basin Plan contained water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Board, with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) with Beneficial Use designations for protection of Aquatic Life*. Resolution No. 2002-011 was approved by the State Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively, and are now in effect. The final effluent limitations for ammonia prescribed in this Order are based on the revised ammonia criteria (see Attachment H) and apply at the end of pipe.

The Basin Plan (i) designates beneficial uses for surface and groundwater, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated (existing and potential) beneficial uses and conform to the State's antidegradation policy, 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 pertinent water quality policies and regulations. The 1994 Basin Plan was prepared to be consistent with all State and Regional Board plans and policies adopted in 1994 and earlier. This Order implements the plans, policies, and provisions of the Board's Basin Plan.

3. ***Sources of Drinking Water Policy*** - On May 19, 1988, the State Water Resources Control Board (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)*.

4. ***Potential Municipal and Domestic Supply (P* MUN)*** - 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.

5. ***State Implementation Plan (SIP) and California Toxics Rule (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, 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 in the 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 Federal Clean Water Act (CWA). This policy also establishes the following: implementation provisions for priority pollutant criteria promulgated by USEPA through the California Toxics Rule (CTR) and for priority pollutant objectives established by Regional Water Quality Control Boards in their water quality control plans (Basin Plans); monitoring requirements for priority pollutants with insufficient data to determine reasonable potential; monitoring requirements for 2, 3, 7, 8 – TCDD equivalents; and chronic toxicity control provisions. The CTR became effective on May 18, 2000 (codified as 40 CFR, Part 131.38). Toxic pollutant limits are prescribed in this Order to implement the CTR and Basin Plan.

   In the CTR, USEPA promulgated criteria that protects the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. USEPA recognizes that adoption of 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 it can demonstrate that the chosen risk level is adequately protective of the most highly exposed subpopulation, and has completed all necessary public participation. This demonstration has not happened in California. Further, the 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 factor is more appropriate. Upon completion of the study, the State Board will review the results and determine if the risk factor needs to be changed. 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.

6. ***Alaska Rule***. On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for Clean Water Act (CWA) purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under USEPA's new regulation (also known as the *Alaska rule*), new and revised

standards submitted to USEPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by EPA.

7. ***Beneficial Uses*** - The Basin Plan contains water quality objectives and beneficial uses for the Santa Clara River and its contiguous waters.

A. The beneficial uses of the receiving surface water are:

Santa Clara River - Hydrologic Unit 403.51	
Existing:	industrial service, industrial process, and agriculture supply; groundwater recharge; freshwater replenishment; water contact and non-contact water recreation; rare, threatened, or endangered species; warm freshwater, wildlife, and wetland[1] habitat.
Potential:	municipal and domestic supply[2]

Santa Clara River - Hydrologic Unit 403.41	
Existing:	industrial service, industrial process, and agriculture supply; groundwater recharge; freshwater replenishment; water contact and non-contact water recreation; rare, threatened, or endangered species; migration of aquatic organisms; warm freshwater, wildlife, and wetland[1] habitat.
Potential:	municipal and domestic supply[2]
Santa Clara River - Hydrologic Unit 403.31	
Existing:	industrial service, industrial process, and agriculture supply; groundwater recharge; freshwater replenishment; water contact[3] and non-contact water recreation; rare, threatened, or endangered species; migration of aquatic organisms; warm freshwater, wildlife, and wetland[1] habitat.
Potential:	municipal and domestic supply[2]
Santa Clara River - Hydrologic Unit 403.21	
Existing:	industrial service, industrial process, and agriculture supply; groundwater recharge; freshwater replenishment; water contact[3] and non-contact water recreation; rare, threatened, or endangered species; migration of aquatic organisms; warm freshwater, wildlife, and wetland[1] habitat.
Potential:	municipal and domestic supply[2]
Santa Clara River - Hydrologic Unit 403.11	
Existing:	industrial service, industrial process, and agriculture supply; groundwater recharge; freshwater replenishment; water contact and non-contact water recreation; rare, threatened, or endangered species; migration of aquatic organisms; warm and cold freshwater, wildlife, and wetland[1] habitat.
Potential:	municipal and domestic supply [2]
Santa Clara River Estuary - Hydrologic Unit 403.11	
Existing:	navigation, water contact and non-contact water recreation; commercial and sport fishing; estuary, marine, wildlife, and wetland[2] habitat; rare,

	threatened, or endangered species[4]; migration of aquatic organisms[5]; spawning, reproduction, and/or early development[5].

Footnote:

[1]. This wetland habitat may be associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

[2]. Municipal and domestic supply uses were designated for the State Water Resources Control Board Order No. 88-63 and Regional Board Resolution No. 89-003.

[3]. The Los Angeles County Department of Public Works posted signs prohibiting access to the stream. However, there is public access to the Santa Clara River and its tributaries though the bike trails that run parallel to the stream. The public has been observed fishing and wading across sections of the river. There is a public contact in the downstream areas; hence, the quality of treated wastewater discharged to the Santa Clara River must be such that no health hazard is created.

[4]. One or more rare species utilize estuary and coastal wetlands for foraging and/or nesting.

[5]. Aquatic organisms utilize estuary and coastal wetland, to a certain extent, for spawning and early development. This may include migration into areas, which are heavily influenced by freshwater inputs.

B. The beneficial uses of the receiving groundwater are:

Eastern Santa Clara – DWR Basin No.[1] 4-4.07	
South Fork	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Placerita Canyon	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Santa Clara-Bouquet and san Francisquito Canyons	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Castaic Valley	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Saugus Aquifer	

Existing:	municipal and domestic supply
Potential:	None
Ventura Central – DWR Basin No.[1] 4.4	
Santa Clara – Lower area east of Piru Creek	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Santa Clara – Lower area west of Piru Creek	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Santa Clara – Upper Sespe area	
Existing:	industrial service supply, and agriculture supply
Potential:	municipal and domestic supply, and industrial process supply
Santa Clara – Fillmore area: Pole Creek Fan area	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Santa Clara – Fillmore area: South side of Santa Clara River	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Santa Clara – Remaining Fillmore area	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, agriculture supply, and aquaculture
Potential:	None
Santa Clara – Santa Paula area: East of Peck Road	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Santa Clara – Santa Paula area: West of Peck Road	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Oxnard Plain – Oxnard Forebay	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Oxnard Plain – Confined aquifers	
Existing:	municipal and domestic supply, industrial service supply, industrial process supply, and agriculture supply
Potential:	None
Oxnard Plain – Unconfined and perched aquifers	
Existing:	municipal and domestic supply, and agriculture supply
Potential:	industrial service supply

Footnote:

[1]. Basins are numbered according to DWR Bulletin No. 118-80 (DWR, 1980).

C. The requirements in this Order are intended to protect designated beneficial uses and enhance the water quality of the watershed. Effluent limits must protect both existing and potential beneficial uses.

D. Consistent with Regional Board Resolution No. 89-03 and State Board Resolution No. 88-63, all inland surface waters in Table 2-1 of the 1994 Basin Plan are designated existing, intermittent, or potential for Municipal and Domestic Supply (MUN).

8. ***Title 22 of the California Code of Regulations*** **-** The California Department of Health Services established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22, California Code of Regulations (Title 22). The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect the groundwater recharge beneficial use when that receiving groundwater is designated as MUN. Also, the Basin Plan specifies that "Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore the secondary MCL's, which are limits based on aesthetic, organoleptic standards, are also incorporated into this permit to protect groundwater quality.

9. ***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. The State Board has, in State Board Order No. 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy. Similarly, the CWA (section 304(d)(4)(B)) and USEPA regulations (40 CFR, Section 131.12) require that all permitting actions be consistent with the federal antidegradation policy. Together, the State and Federal policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge. The provisions of this Order are consistent with the antidegradation policies.

10. ***Watershed Approach*** **-** This Regional Board has been implementing a Watershed Management Approach (WMA), to address water quality protection in the Los Angeles Region, as detailed in the Watershed Management Initiative (WMI). The WMI is designed to integrate various surface and ground water regulatory programs while promoting cooperative, collaborative efforts within a watershed. It is also designed to focus limited resources on key issues and use sound science. Information about the Santa Clara River Watershed and other watersheds in the region can be obtained from the Regional Board's web site at *http://www.swrcb.ca.gov/rwqcb4/* and clicking on the word "Watersheds".

Pursuant to this Regional Board's watershed initiative framework, the Santa Clara River Watershed Management Area was the targeted watershed for fiscal year 1999-2000. However, the NPDES permit renewals were re-scheduled for the 2002-2003 fiscal year so that provisions of the CTR and SIP could be incorporated into the permits.

VII. REGULATORY BASIS FOR EFFLUENT AND RECEIVING WATER LIMITS AND OTHER DISCHARGE REQUIREMENTS

1. ***Water Quality Objectives and Effluent Limits*** - *Water* Quality Objectives (WQOs) and effluent limitations in this permit are based on:

   A. Applicable State Regulations/Policies/Guidances

      a. 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;

      b. California Toxics Rule (40 CFR 131.38);

      c. 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); and,

      d. Administrative Procedures Manual and Administrative Procedure Updates.

   B. Applicable Federal Regulations/Policies/Guidances

      a. Federal Clean Water Act;

      b. 40 CFR, Parts 122, 131, among others;

      c. Best professional judgment (pursuant to 40 CFR 122.44);

      d. USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs Final May 31, 1996;

      e. USEPA Whole Effluent Toxicity (WET) Control Policy July 1994;

      f. Inspectors Guide for Evaluation of Municipal Wastewater Treatment Plants, April 1979 (EPA/430/9-79-010);

      g. Fate of Priority Pollutants in Publicly Owned Treatment Works Pilot Study October 1979 (EPA-440/1-79-300);

h. *Technical Support Document for Water Quality Based Toxics Control,* March 1991 (EPA-505/ 2-90-001); and,

i. *U.S. EPA NPDES Permit Writers' Manual,* December 1996 (EPA-833-B-96-003).

Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR, Part 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 attain and maintain narrative water quality criteria to fully protect designated beneficial uses.

2. ***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, except during wet-weather, storm events that cause flows to the treatment plant to exceed the plant's design capacity.

3. ***Maximum Daily Effluent Limitations*** - Pursuant to 40 CFR, Section 122.45(d)(2), for POTWs 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 in the permits, 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.

4. ***Pretreatment*** - Pursuant to 40 CFR, Section 403, the CSDLAC developed and has been implementing an approved industrial wastewater Pretreatment Program. This Order requires the CSDLAC to continue the implementation of the approved Pretreatment Program and modifications thereof.

5. ***Sludge Disposal*** - To implement CWA Section 405(d), on February 19, 1993, the USEPA promulgated 40 CFR, Part 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the CSDLAC to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program.

6. ***Storm Water Management*** - 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 to regulate storm water discharges associated with industrial activity.

   General NPDES permit No. CAS000001 is applicable to storm water discharges from the Valencia WRP's premises. On June 4, 1992, the 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.

7. ***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.

8. ***Antibacksliding Policies*** - 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.

9. ***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.

10. ***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 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 401.12 and 40 CFR 423, Appendix A) and include heavy 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.

11. ***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 USEPA develop secondary treatment standards for POTWs as defined in Section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations, which are specified in 40 CFR 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.

12. ***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 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. This was upheld by the Appellate Court in *the City of Burbank, City of Los Angeles v. State Water Resources Control Board* case. Applicable water quality standards for the Santa Clara River are contained in the Basin Plan and CTR, as described in previous findings. Applicable water quality standards for the Santa Clara River are contained in the Basin Plan and CTR, as described in previous findings.

13. ***Water Quality Based Effluent Limitations for Toxic Pollutants*** **-** Toxic substances are regulated in this permit by water quality based effluent limitations derived from

the 1994 Basin Plan, the CTR, and/or best professional judgment (BPJ) pursuant to Part 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 122.44(d)(1)(i), and in part, the SIP, require the establishment of WQBELs that will protect water quality. As documented in 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. Reasonable potential was not triggered for some of the 126 priority pollutants and final limits cannot be determined at this time. 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.

14. ***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 due to no mixing zone or dilution credits allowed.

15. ***303(d) Listed Pollutants*** - On July 25, 2003, USEPA approved the State's most recent list of impaired waterbodies. The list (hereinafter referred to as the 303(d) list) was prepared in accordance with Section 303(d) of the Federal Clean Water Act to identify specific impaired waterbodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources.

    Santa Clara River, Santa Clara River Estuary, and their tributaries are on the 303(d) List. The following pollutants/stressors, from point and non-point sources, were identified as impacting the receiving waters:

    A. Santa Clara River Estuary: Chem A, High Coliform Count, Toxaphene;

    B. Santa Clara River Reach 3 (Freeman Diversion to A Street): Ammonia, Chloride, Total Dissolved Solids;

    C. Santa Clara River Reach 7 (Blue Cut to West Pier Hwy 99 Bridge): Chloride, High Coliform Count, Nitrate and Nitrite;

    D. Santa Clara River Reach 8 (W. Pier Hwy 99 to Bouquet Canyon Rd. Bridge) -- Hydrologic Unit 403.51: Chloride and High Coliform Count; and,

    E. Santa Clara River Reach 9 (Bouquet Canyon Rd to above Lang Gaging) -- Hydrologic Unit 403.51: High Coliform Count.

The Regional Board revised the 303(d) list in 2002 and submitted the draft to the State Board for approval. The State Board had scheduled the draft 303(d) list, dated October 15, 2002, for approval at two of its meetings, however the item was postponed to hold additional workshops and to allow more time for the public to submit comments. The draft 303(d) list dated October 15, 2002, was revised on January 13, 2003, based on comments received. The draft 303(d) list, dated January 13, 2003, was adopted by the State Board at its February 4, 2003 meeting. The adopted 303(d) list was approved by USEPA on July 25, 2003.

16. ***Relevant 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, including a margin of safety that may be discharged to a water quality-limited water body. Section 303(d) of the CWA established the TMDL process. The statutory requirements are codified at 40 CFR, Part 130.7. 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 has developed a TMDL that assesses the extent and sources of the ammonia and algae (nutrient/nitrogen) problems in the Santa Clara River. According to the TMDL schedule, under the amended concent decree, *Heal the Bay, Santa Monica Bay Keeper, et al. v. Browner, et al.* (March 23, 1999), the nitrogen and chloride TMDLs for the Santa Clara River must be completed by 2004 and 2003, respectively. The coliform TMDL is scheduled for completion by 2006.

Chloride TMDL. On October 24, 2002, the Regional Board adopted Resolution No. 2002-018, Amendment to the Basin Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load to Reduce Chloride Loading in the Upper Santa Clara River. Soon after, the Regional Board submitted the TMDL to the State Board for approval. On February 19, 2003, the State Board adopted Resolution No. 2003-0014, the "Remand Resolution," finding that the Regional Board staff prepared the documents and followed procedures satisfying environmental documentation requirements in accordance with the California Environmental Quality Act, scientific peer review, and other State laws and regulations to develop a TMDL. However, the Remand Resolution directed the Regional Board to consider revising the implementation provisions of the chloride TMDL. On July 10, 2003, the Regional Board reconsidered Resolution No. 2002-018, in light of the Remand Resolution, and adopted Resolution No. 2003-008 which modified the chloride TMDL implementation provisions by:

A. Expanding the phased-TMDL approach to allow CSDLAC to complete the implementation tasks sequentially and within 13 years;

B. Extending the interim limits beyond the proposed two and a half years but not to exceed 13 years, so that the interim limits may remain in effect during the planning, construction, and execution portions of the TMDL's implementation tasks; and,

C. Modifying the TMDL analysis task list to include an assessment/ evaluation of alternative water supplies for agricultural beneficial uses.

The TMDL is awaiting final approvals from the State Board, the Office of Administrative Law, and U.S.EPA. Subsequent to the effective date of the chloride TMDL, the accompanying Order or its successors may be reopened and modified to include effluent limits that will be consistent with the waste load allocations and other provisions in the chloride TMDL, as necessary.

Nitrogen Compounds and Related Effects TMDL. On August 7, 2003, the Regional Board adopted Resolution No. 2003-011, Amendment to the Basin Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds in the Santa Clara River (*Nitrogen Compounds* TMDL). The TMDL is awaiting State Board, OAL, and USEPA approval.

17. ***Mixing Zones and Dilution Credits*** - Mixing zones, dilution credits, and attenuation factors are not allowed in the accompanying 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, at this time, in light of the following factors:

A. The Valencia WRP discharge contributes the largest flow (effluent dominated) into the Santa Clara River watershed in the vicinity of the discharge point where it overwhelms the receiving water providing very limited mixing and dilution;

B. Even in the absence of the Valencia WRP discharge, the receiving water primarily consists of nuisance flows and other effluents, limiting its assimilative capacity;

C. Several reaches of the Santa Clara River [including those subject to this Order] are 303(d) listed (i.e., impaired) for certain constituents;

D. Impaired waters do not have the capacity to assimilate pollutants of concern at concentrations greater than the applicable objective;

E. For the protection of the beneficial uses is listed on Finding 25;

F. Consistent with Antidegradation Policies;

G. Because a mixing zone study has not been conducted; and,

H. Because hydrologic models of the discharge and the receiving waters have not been conducted.

On July 16, 2003, the State Board adopted Order No. WQO 2003-0009, directing Regional Board staff to work with CSDLAC, once data was provided, to determine whether dilution and attenuation are appropriate factors to consider in developing effluent limits to protect the GWR beneficial use, in the Whittier Narrows WRP NPDES permit. However, this does not apply to the Saugus or Valencia WRPs, because CSDLAC has not provided the necessary site-specific data or studies regarding the ground water basins in the Santa Clarita or Valencia areas.

18. 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 following sections of this Fact Sheet prepared by Regional Board staff.

VIII. REASONABLE POTENTIAL ANALYSIS

1. As specified in 40 CFR, Part 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, Part 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."

   A. Using the method described in the TSD, the Regional Board has conducted Reasonable Potential Analysis (RPA) for:

      a. Chronic Toxicity - RPA was conducted for Chronic Toxicity (Table R2 of the accompanying Fact Sheet) using the discharger's effluent data from their ROWD and annual self monitoring reports. Chronic Toxicity effluent data is summarized in Table C1 of the accompanying Fact Sheet. The RPA compares the effluent data with USEPA's 1 TUc water quality criteria. The Discharger's effluent demonstrated Chronic Toxicity during the last permit cycle. Based on this information, the Regional Board has determined that there is a reasonable potential that the discharge will cause toxicity in the receiving water and, consistent with SIP section 4, the Order contains a narrative effluent limitation for Chronic Toxicity. The circumstances warranting a numeric Chronic Toxicity effluent limitation were reviewed by the State Water Resources Control Board (State Board) in SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, the State Board adopted Order No. WQO 2003-0012, deferring the numeric chronic toxicity effluent limitation issue until the adoption of Phase II of the SIP, and replaced the numeric chronic toxicity effluent limitation with a narrative effluent limitation for the time being.

      b. Ammonia and other Nitrogen Species – RPA was conducted for Ammonia, Nitrate plus Nitrite as Nitrogen, Nitrite Nitrogen, and MBAS (Table **R2** of the accompanying Fact Sheet) using the Discharger's effluent data from their self monitoring reports. Ammonia, Nitrate plus Nitrite as Nitrogen, and Nitrite Nitrogen effluent data is summarized in Table A1 of the accompanying Fact Sheet. Temperature and pH effluent data is summarized in Table A2 of the accompanying Fact Sheet. The RPA compares the effluent data with the Basin Plan water quality objectives (WQOs). The Discharger's effluent exceeded the Basin Plan WQOs for Ammonia, Nitrate plus Nitrite as Nitrogen, and Nitrite Nitrogen, during the last permit cycle. Based on this information, the Regional

Board has determined that there is a reasonable potential that the discharge will cause or contribute to an exceedance of the Basin Plan WQOs and, consistent with 40 CFR 122.44(d), the Order contains numeric effluent limitations for Ammonia, Nitrate plus Nitrite as Nitrogen, and Nitrite Nitrogen.

B. Using the method described in the SIP, the Regional Board has conducted Reasonable Potential Analyses (RPA) for priority pollutants using the discharger's effluent data contained in Table D1 and Table D2. 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:

i. 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 water quality-based effluent limitation (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).

ii. 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).

iii. 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 MDELs shall be used for publicly-owned treatment works (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 the RPA for the pollutant, or if all reported detection limits of the pollutant in the effluent are greater than or equal to the WQO, the Regional Board shall 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 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 prohibit the establishing of WQBELs in the permit.

A numerical 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 August 1995 through July 2003, including interim monitoring results from July 2001 to December 2002. Table R1 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.

i. **Metals Water Quality Objective** - For metals, the lowest applicable Water Quality Objective (WQO) was expressed as total recoverable, and where applicable, adjusted for hardness. A spreadsheet (Table R3) was used to calculate the total recoverable CTR criteria. 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. However individual harness values greater than 400 mg/L were capped at 400 prior to calculating the average hardness, because a site specific WER for the Santa Clara River has not been developed. This is consistent with the preamble to the CTR, contained in federal register Section E.f. *Hardness* (p.31692), 40 CFR Part 131, which reads, "If hardness is over 400 mg/L as $CaCO_3$, a hardness of 400 mg/L $CaCO_3$ should be used with a default WER (Water Effects Ratio) of 1.0; alternatively, the WER and actual hardness of the surface water may be used."

ii. **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 collected the eighteen required samples and reported the results quarterly to the Regional Board. After additional information is gathered, 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.

In case of cyanide, the monthly average limitation in the accompanying Order is lower than the lowest minimum level (ML) listed in Attachment 4 of the SIP, 5 µg/L, using the colorimetric technique. CSDLAC and other Dischargers have contacted Regional Board staff and State Board staff communicating the difficulty they are experiencing in achieving that low ML level for cyanide, the uncertainty in the results due to possible matrix interferences, and the possible impacts of interferences on the test method. CSDLAC submitted a workplan to investigate the assertion that matrix interferences cause spurious, random detections of cyanide in the total cyanide analytical test (Standard Methods Section 4500CN and EPA 335.1). In their workplan, CSDLAC proposed to: (i) establish matrix-specific MDLs, pursuant to 40 CFR, Section 136, and provide a broad-based evaluation of background effects using the method of standard additions; (ii) utilize an independent, EPA approved analytical test method (EPA 1677, ligand exchange method) to evaluate the presence of any available cyanide remaining after wastewater treatment; and, (iii) directly analyze the finite number of inert metal cyanide complexes, which could possibly survive the treatment plant process and chlorination, which could be detected by the total cyanide method, but not by EPA method 1677. During the course of the eight-month investigation, the Discharger used 10 µg/L as an interim matrix specific ML. After an eight-month study on the cyanide matrix interferences, the CSDLAC has not positively identified the interferences. The Regional Board did not extend the use of 10 µg/L as an interim matrix specific ML.

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

d. Regional Board staff have determined that mercury, acrylonitrile and cyanide showed the potential to exceed respective CTR objectives, and, therefore, require CTR-based effluent limitations.

2. The Order is consistent with State and Federal antidegradation policies in that it does not authorize a change in the quantity of treated 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 or improve, 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 antibacksliding provisions.

3. The Regional Board also notes that the discharges regulated by the accompanying Order are discharges from a POTW. A POTW receives sewage from domestic, commercial, and industrial sources, with the industrial sources subject to pretreatment requirements. These diverse sewage sources are all subject to primary, secondary, and tertiary treatment and chlorination/dechlorination at the POTW. Due to the nature of a POTW, the Discharger would not be able to adjust treatment techniques to exploit removed effluent limitations, without running the risk of violating effluent limits for nonpriority pollutants. It is technically difficult and would also trigger a reopening of the NPDES permit. As a result, the accompanying Order is consistent with antidegradation because the discharge will not change or increase.

IX. PROPOSED EFFLUENT LIMITATIONS

1. Numeric toxic constituent limitations are based on the Basin Plan the narrative water quality objective for toxic constituents, "All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in, human, plant, animal, or aquatic life"; on the CTR; and, the interpretation of the Basin Plan narrative criteria using USEPA's 304(a) nationally

recommended water quality criteria. For toxic constituents that have no reasonable potential to cause or contribute to excursions of water quality objectives, no numerical limitations are prescribed.

2. Pursuant to 40 CFR 122.45(d)(2), for a POTWs 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 for POTWs. It is impracticable to only include average weekly and average monthly effluent limitations in the permit, because a single daily discharge of a pollutant, in excess amounts, can cause violations of water quality objectives. The effects of 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 122.45(d)(1), are included in the permit.

3. Furthermore, Section 1.4 of the SIP requires the step-by-step procedure to "adjust" or convert CTR numeric criteria into Average Monthly Effluent Limitations (AMELs) and Maximum Daily Effluent Limitations (MDELs), for toxics.
   A. Step 3 of Section 1.4 of the SIP (page 6) lists the statistical equations that adjust CTR criteria for effluent variability.

   B. Step 5 of Section 1.4 of the SIP (page 8) lists the statistical equations that adjust CTR criteria for averaging periods and exceedance frequencies of the criteria/objectives. This section also reads, "For this method only, maximum daily effluent limitations shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations.

4. Table R1 is the spreadsheet that staff used to calculate the AMELs and MDELs for priority pollutants.

5. 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, as 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.

6. 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 meets its mass-based limits. To account for this, this permit includes mass and concentration limits for some constituents, except during wet-weather, storm events that cause flows to the treatment plant to exceed the plant's design capacity.

   A. Effluent Limitations

a. Conventional and nonconventional pollutants

Constituent	Units	Discharge Limitations		
		Monthly Average[1]	Weekly Average[1]	Daily Maximum[2]
Settleable solids	ml/L	0.1	--	0.3
Suspended solids	mg/L	15	40	45
	lbs/day[3]	1600	4200	4700
Oil and grease	mg/L	10	--	15
	lbs/day[3]	1100	--	1600
$BOD_{5@20°C}$	mg/L	20	30	45
	lbs/day[3]	2100	3200	4700
Total residual chlorine	mg/L	--	--	0.1[4]
Total dissolved solids	mg/L	1000	--	--
	lbs/day[3]	105,000	--	--
Chloride	mg/L	100 [5]	--	--
	lbs/day[3]	10,500	--	--
	mg/L	--	--	100 [6]
	mg/L	187 [7]	--	196 [7]
Sulfate	mg/L	400	--	--
	lbs/day[3]	42,000	--	--
Boron	mg/L	1.5	--	--
	lbs/day[3]	160	--	--
Fluoride	mg/L	1.6	--	--
	lbs/day[3]	170	--	--
Detergents (as MBAS)	mg/L	0.5	--	--
	lbs/day[3]	50	--	--
Nitrate + Nitrite (as N)	mg/L	5 [8]	--	--
	lbs/day[3]	500	--	--
	mg/L	6.8 [9]	--	--
	mg/L	10 [10]	--	--
Nitrite (as N)	mg/L	1[8]	--	--
	lbs/day[3]	105	--	--
		0.9 [9]	--	--
		1 [10]	--	--
Total ammonia (as N)	mg/L	[12]	--	[11]
	lbs/day[3]	[3]	--	[3]
	mg/L	1.75 [9]	--	5.2 [9]

Footnotes:

[1]. Average Monthly Discharge Limitation means the highest allowable average of daily discharge over a calendar month, calculated as the sum of all daily discharges measured during that month divided by the number of days on which monitoring was performed.

Average Weekly Discharge Limitation means the highest allowable average of daily discharge over a calendar week, calculated as the sum of all daily discharges measured during that week divided by the number of days on which monitoring was performed.

[2]. 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.

[3]. The mass emission rates are based on the existing plant design flow rate of 12.6 mgd, and are calculated as follows: Flow(MDG) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will incrementally increase to 21.6 MGD, as the phased plant upgrade approaches completion, by the fall 2004. The mass-based effluent limitation will accordingly be modified upon certification and approval of increased treatment plant capacity. 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]. Total residual chlorine concentration excursions of up to 0.3 mg/L, at the point in 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] This is the water quality objective for chloride in the current Basin Plan. This effluent limitation applies immediately and will stay in effect until the Chloride TMDL for the Santa Clara River, Resolution No. 2002-018, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Chloride in the Santa Clara River* (*Chloride TMDL*), is approved by USEPA (i.e., the effective date of the TMDL). At that time, the interim effluent limitation accompanying table footnote [7] will be effective. If U.S. EPA does not approve the *Chloride TMDL*, this effluent limitation will remain in effect until revised by the Regional Board.

[6] This is the waste load allocation (WLA), according to the Chloride TMDL Resolution No. 2002-018, adopted by the Regional Board on October 24, 2002. The waste load allocation will ultimately serve as the effluent limitation for the discharge. This limit becomes effective after the USEPA approves the Chloride TMDL. If U.S. EPA does not approve the *Chloride TMDL*, this effluent limitation will not apply.

[7] This is the interim limit according to the *Chloride TMDL* adopted by the Regional Board on October 24, 2002. This interim limit becomes effective when the USEPA approves the *Chloride TMDL* for the Santa Clara River and continues for the duration of the TMDL interim limit provisions. This interim limit will supercede the effluent limitation specified accompanying table footnote [5] and will remain in effect until superceded by the effluent limitation specified accompanying table footnote [6]. If U.S. EPA does not approve the *Chloride TMDL*, this effluent limitation will not apply.

[8] This is the water quality objective for nitrate plus nitrite as nitrogen and nitrite nitrogen in the current Basin Plan. This effluent limitation applies immediately and will stay in effect until the Nutrient TMDL for the Santa Clara River, Resolution No. 2003-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds in the Santa Clara River* (*Nitrogen Compounds TMDL*), is approved by USEPA (i.e., the effective date of the TMDL). At that time, the interim effluent limitation accompanying table footnote [10] will be effective. If U.S. EPA does not approve the *Nitrogen Compounds TMDL*, this effluent limitation will remain in effect until revised by the Regional Board.

[9] This is the waste load allocation (WLA), according to the Nitrogen TMDL Resolution No. 2003-011, adopted by the Regional Board on August 7, 2003. The waste load allocation

will ultimately serve as the effluent limitation for the discharge. This limit becomes effective after the USEPA approves the Nitrogen TMDL. If U.S. EPA does not approve the *Nitrogen TMDL*, this effluent limitation will not apply.

[10] This is the interim limit according to the *Nitrogen TMDL* adopted by the Regional Board on August 7, 2003. This interim limit becomes effective when the USEPA approves the *Nitrogen TMDL* for the Santa Clara River and continues for the duration of the TMDL interim limit provisions. This interim limit will supercede the effluent limitation specified accompanying table footnote [8] and will remain in effect until superceded by the effluent limitation specified accompanying table footnote [9]. If U.S. EPA does not approve the *Nitrogen TMDL*, this effluent limitation will not apply.

[11] The Discharger must comply with the updated ammonia water quality objectives in the Basin Plan, Table 3-1 (Attachment H) which resulted from Resolution No. 2002-011 adopted by the Regional Board on April 25, 2002.

For compliance with Criteria Maximum Concentration (CMC) in the Attachment H, the pH sample collected in the receiving water downstream of the discharge and the ammonia nitrogen sample collected in the effluent, shall be taken and reported at the same time. Shall there be no receiving water present, the pH of the effluent at the end of pipe shall be determined and reported.

[12] The Discharger must comply with the updated ammonia water quality objectives in the Basin Plan, Table 3-3 (Attachment H) which resulted from Resolution No. 2002-011 adopted by the Regional Board on April 25, 2002.

For compliance with Criteria Continuous Concentration (CCC) in the Attachment H, the pH and temperature samples collected in the receiving water downstream of the discharge and the ammonia nitrogen sample collected in the effluent, shall be taken and reported at the same time. Shall there be no receiving water present, the pH and temperature of the effluent at the end of pipe shall be determined and reported.

B. <u>Basis for conventional and nonconventional pollutants</u>

a. *Biochemical Oxygen Demand (BOD) and Suspended solids*

Biochemical oxygen demand (BOD) is a measure of the quantity of the organic matter in the water and, therefore, the water's potential for becoming depleted in dissolved oxygen. As organic degradation takes place, bacteria and other decomposers use the oxygen in the water for respiration. Unless there is a steady resupply of oxygen to the system, the water will quickly become depleted of oxygen. Adequate dissolved oxygen levels are required to support aquatic life. Depressions of dissolved oxygen can lead to anaerobic conditions resulting in odors, or, in extreme cases, in fish kills.

40 CFR, Part 133 describes the minimum level of effluent quality attainable by secondary treatment, for BOD and suspended solids, as:

i. the monthly average shall not exceed 30 mg/L; and,

ii. the 7-day average shall not exceed 45 mg/L.

Valencia WRP provides tertiary treatment, as such, the limits in the permit are more stringent than secondary treatment requirements. The Plant achieves solids removal that are better than secondary-treated wastewater by adding a polymer (Alum) to enhance the precipitation of solids, and by filtering the effluent.

The monthly average, the 7-day average, and the daily maximum limits cannot be removed because none of the antibacksliding exceptions apply. Those limits were all included in the previous permit (Order 95-081) and the Valencia WRP has been able to meet all three limits (monthly average, the 7-day average, and the daily maximum), for both BOD and suspended solids.

In addition to having mass-based and concentration-based effluent limitations for BOD and suspended solids, the Valencia WRP also has a percent removal requirement for these two constituents. In accordance with 40 CFR, Sections 133.102(a)(3) and 133.102(b)(3), the 30-day average percent removal 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 for a given time period.

b. *Settleable solids*

Excessive deposition of sediments can destroy spawning habitat, blanket benthic (bottom dwelling) organisms, and abrade the gills of larval fish. The limits for settleable solids are based on the Basin Plan (page 3-16) narrative, "Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses." The numeric limits are empirically based on results obtained from the settleable solids 1-hour test, using an Imhoff cone.

It is impracticable to use a 7-day average limitation, because short term spikes of settleable solid levels that would be permissible under a 7-day average scheme would not be adequately protective of all beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the antibacksliding exceptions apply. The monthly average and daily maximum limits were both included in the previous permit (Order 95-081) and the Valencia WRP has been able to meet both limits.

c. *Oil and grease*

Oil and grease are not readily soluble in water and form a film on the water surface. Oily films can coat birds and aquatic organisms, impacting respiration and thermal regulation, and causing death. Oil and grease can also cause nuisance conditions (odors and taste), are aesthetically unpleasant, and can restrict a wide variety of beneficial uses. The limits for oil and grease are based on the Basin Plan (page 3-11) narrative, "Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses."

The numeric limits are empirically based on concentrations at which an oily sheen becomes visible in water. It is impracticable to use a 7-day average limitation, because spikes that occur under a 7-day average scheme could cause visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the antibacksliding exceptions apply. Both limits were included in the previous permit (Order 95-081) and the Valencia WRP has been able to meet both limits.

d. *Residual chlorine*

Disinfection of wastewaters with chlorine produces chlorine residual. Chlorine and its reaction products are toxic to aquatic life. The limit for residual chlorine is based on the Basin Plan (page 3-9) narrative, "Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses."

It is impracticable to use a 7-day average or a 30-day average limitation, because it is not as protective as of beneficial uses as a daily maximum limitation is. Chlorine is very toxic to aquatic life and short-term exposures of chlorine may cause fish kills.

e. *Fluoride*

The existing permit effluent limitation of 1.6 mg/l for fluoride was developed based on the Basin Plan incorporation of Title 22, *Drinking Water Standards,* by reference, for the protection of GWR. It is practicable to express the limit as a monthly average, since fluoride is not expected to cause acute effects on beneficial uses.

f. *Total Dissolved Solids, Chloride, Sulfate, and Boron*

The limits for total dissolved solids, sulfate, chloride, and boron are based on Basin Plan Table 3-8 (page 3-12), for the Santa Clara River watershed (between West Pier Highway 99 and Blue Cut Gaging Station). TDS = 1000 mg/L; Sulfate = 400 mg/L; Chloride = 100 mg/L; and Boron = 1.5 mg/L. It is practicable to express these limits as monthly averages, since they are not expected to cause acute effects on beneficial uses.

g. *Iron*

The existing permit effluent limitation of 300 mg/l for iron was developed based on the Basin Plan chemical constituent incorporation of Title 22, *Drinking Water Standards,* by reference, for the protection of GWR beneficial use. 300 µg/L is the secondary MCL for iron. The existing permit effluent limitation is also consistent with the EPA document, Quality Criteria for Water 1986 [EPA 440/5-86-001, May 1, 1986], also referred to as the Gold Book. In November 2002, USEPA adopted *National Recommended Water Quality Criteria:2002*, which replaced the Gold Book. Although Iron is not a priority pollutant, the *National Recommended Water Quality Criteria:*2002 contains a WQO for iron. Iron has been detected in the effluent and the Discharger adds iron-containing chemicals to the sewer system to prevent corrosion of the sewage lines. The discharge has reasonable potential to contribute to an exceedance of the WQO, therefore a WQBEL is needed. The monthly average limit was included in the previous permit (Order 95-081) and cannot be removed because none of the antibacksliding exceptions apply.

h. *Methylene Blue Activated Substances (MBAS)*

The MBAS procedure tests for the presence of anionic surfactants (detergents) in surface and ground waters. Surfactants disturb the water surface tension, which affects insects and can affect gills in aquatic life. The MBAS can also impart an unpleasant soapy taste to water, as well as cause scum and foaming in waters, which impact the aesthetic quality of both surface and ground waters.

Given the nature of the facility (a POTW) which accepts domestic washwater into the sewer system and treatment plant, and the characteristics of the wastes discharged, the discharge has reasonable potential to exceed both the numeric MBAS water quality objective (WQO) and the narrative WQO for prohibition of floating material such as foams and scums. Therefore an effluent limitation is required.

In self monitoring reports submitted to the Regional Board under MRP requirements, the Discharger has reported MBAS concentrations in the effluent in excess of 0.5 mg/L. The 0.5 mg/L concentration (which has been determined to be protective of beneficial uses and the aesthetic quality of waters), is based on the Department of Health Services' secondary drinking water standard, and on the Basin Plan WQO (p.3-11) which reads, "Waters shall not have MBAS concentrations greater than 0.5 mg/L in waters designated MUN." While the wastewater from this POTW is not directly discharged into a MUN designated surface water body, it will percolate into unlined reaches of the Santa Clara River [via ground water recharge designated beneficial use (GWR)] to ground water designated for MUN beneficial use. In addition, the Basin Plan states that "Ground water shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore, the secondary

MCL should be the MBAS limit for this discharge to protect ground water recharge and the MUN use of the underlying ground water, while also protecting surface waters from exhibiting scum or foaming.

Since the Basin Plan objective is based on a secondary drinking water standard, it is practicable to have a monthly average limitation in the permit.

i. *Total inorganic nitrogen*

Total inorganic nitrogen is the sum of Nitrate-nitrogen and Nitrite-nitrogen. High nitrate levels in drinking water can cause health problems in humans. Infants are particularly sensitive and can develop methemoglobinemia (blue-baby syndrome). Nitrogen is also considered a nutrient. Excessive amounts of nutrients can lead to other water quality impairments, ex. algae.

i. **Concentration-based Limit** - The effluent limit for total inorganic nitrogen (NO2-N + NO3-N) of 5 mg/L is based on Basin Plan Table 3-8 (page 3-12), for the Santa Clara River watershed (between West Pier Highway 99 and Blue Cut GagingStation).

ii. **Mass-based Limit** - The mass bases limits are based on the existing plant design flow rate of 12.6 mgd, and are calculated as follows: Flow(MDG) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will incrementally increase to 21.6 MGD, as the phased plant upgrade approaches completion, by the fall 2004. The mass-based effluent limitation will accordingly be modified upon certification and approval of increased treatment plant capacity. 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.

iii. **Nitrite as Nitrogen** - Chapter 3 of the Basin Plan (page 3-11) contains the following water quality objective, "Waters shall not exceed the 10 mg/L nitrogen as nitrate-nitrogen plus nitrite-nitrogen (NO_3-N + NO_2-N), 45 mg/L as nitrate (NO_3), 10 mg/L as nitrate-nitrogen (NO_3-N), or 1 mg/L as nitrite-nitrogen (NO_2-N) or as otherwise designated in Table 3-8." The Discharger will have to meet the 1 mg/L WQO at the end-of-pipe, since dilution is not an option at the present time.

j. *Ammonia as Nitrogen*

Ammonia is a pollutant routinely found in the wastewater effluent of Publicly Owned Treatment Works (POTWs), in landfill-leachate, as well as in run-off from agricultural fields where commercial fertilizers and animal manure are applied. Ammonia exists in two forms – un-ionized ammonia (NH_3) and the ammonium ion (NH_4^+). They are both toxic, but the neutral, un-ionized ammonia species (NH_3) is much more toxic, because it is able to diffuse across the epithelial membranes of aquatic organisms much more readily than the charged ammonium ion. The form of ammonia is primarily a function of pH, but it is also affected by temperature and other factors. Additional impacts can also occur as the oxidation of ammonia lowers the dissolved oxygen content of the water, further stressing aquatic organisms. Oxidation of ammonia to nitrate may lead to groundwater impacts in areas of recharge. [There is groundwater recharge in these reaches]. Ammonia also combines with chlorine (often both are present in POTW treated effluent discharges) to form chloramines – persistent toxic compounds that extend the effects of ammonia and chlorine downstream.

Ammonia is 303(d) listed in Reach 3 of the Santa Clara River, downstream of the discharge. Since ammonia has reasonable potential to cause or contribute to an excursion of a water quality objective, a water quality-based effluent limitation for total ammonia is required in order to be protective of the water quality objective.

The 1994 Basin Plan contained water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Board, with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) with Beneficial Use designations for protection of Aquatic Life*. Resolution No. 2002-011 was approved by the State Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively, and are now in effect. The final effluent limitations for ammonia prescribed in this Order are based on the revised ammonia criteria (see Attachment H) and apply at the end of pipe.

On August 7, 2003, the Regional Board adopted Resolution No. 2003-011, Amendment to the Basin Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds in the Santa Clara River *(Nitrogen Compounds* TMDL). The TMDL contains ammonia nitrogen Waste Load Allocations (WLA) for the Valencia WRP. However, the TMDL is awaiting State Board, OAL, and USEPA approval. Ultimately, if the State Board, the Office of Administrative Law, and the USEPA approve the *Nitrogen Compounds TMDL*, the WLA for ammonia will supercede any ammonia limit in the NPDES permit.

k. <u>*Coliform/Bacteria*</u>

Total and fecal coliform bacteria are used to indicate the likelihood of pathogenic bacteria in surface waters. Given the nature of the facility, a wastewater treatment plant, pathogens are likely to be present in the effluent in cases where the disinfection process is not operating adequately. As such, the permit contains the following:

i. Effluent Limitations:

- The 7 day median number of coliform organisms at some point in the treatment process must not exceed 2.2 Most Probable Number (MPN) per 100 milliliters, and

- The number of coliform organisms must not exceed 23 MPN per 100 milliliters in more than one sample within any 30-day period.

These disinfection-based effluent limitations for coliform are for human health protection and are consistent with requirements established by the Department of Health Services. These limits for coliform must be met at the point of the treatment train immediately following disinfection, as a measure of the effectiveness of the disinfection process.

ii. Receiving Water Limitation

- Geometric Mean Limits

  * E.coli density shall not exceed 126/100 mL.
  * Fecal coliform density shall not exceed 200/100 mL.

- Single Sample Limits

  * E.coli density shall not exceed 235/100 mL.
  * Fecal coliform density shall not exceed 400/100 mL.

These receiving water limitations are based on Resolution No. 01-018, Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Water Bodies Designated for Water Contact Recreation, adopted by the Regional Board on October 25, 2001. The Resolution was approved by State Board, OAL, and USEPA, on July 18, 2002, September 19, 2002, and September 25, 2002, respectively.

l. *pH*

The hydrogen ion activity of water (pH) is measured on a logarithmic scale, ranging from 0 to 14. While the pH of "pure" water at 25°C is 7.0, the pH of natural waters is usually slightly basic due to the solubility of carbon dioxide from the atmosphere. Minor changes from natural conditions can harm aquatic life. The effluent limitation for pH which reads, "the wastes discharged shall at all times be within the range of 6.5 to 8.5," is taken from the Basin Plan (page 3-15) which reads" the pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge.

m. *Turbidity*

Turbidity is an expression of the optical property that causes light to be scattered in water due to particulate matter such as clay, silt, organic matter, and microscopic organisms. Turbidity can result in a variety of water quality impairments. The effluent limitation for turbidity which reads, "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," is based on the Basin Plan (page 3-17).

n. *Radioactivity*

Radioactive substances are generally present in natural waters in extremely low concentrations. Mining or industrial activities increase the amount of radioactive substances in waters to levels that are harmful to aquatic life, wildlife, or humans. The existing effluent limitation for radioactivity which reads, "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," is based on the Basin Plan incorporation of Title 22, *Drinking Water Standards,* by reference, to protect the surface water MUN beneficial use. However, the Regional Board has new information about the appropriate designated uses for the water body, and based on the current designated uses, a limit for Radioactivity is unnecessary and inappropriate unless discharge is to a reach used for groundwater recharge, where Title 22-based limits apply. Therefore, the accompanying Order will contain a limit for radioactivity to protect the GWR beneficial use.

C. Toxicity

Ambient monitoring data indicates that the background concentration in the lower Santa Clara is toxic to aquatic organisms, and therefore exceeds water quality standards. Final effluent water quality data, contained in the Discharger's monitoring reports, also shows that chronic toxicity in the effluent has exceeded 1TUc (monthly median) several times. Therefore, pursuant to the TSD, reasonable potential exists for toxicity. As such, the permit should contain a numeric effluent limitation for toxicity.

The toxicity numeric effluent limitations are based on:

a. 40 CFR 122.2 (Definition of Effluent Limitation);

b. 40 CFR 122.44(d)(v) – limits on whole effluent toxicity are necessary when chemical-specific limits are not sufficient to attain and maintain applicable numeric or narrative water quality standards;

c. 40 CFR 122.44(d)(vi)(A) – where a State has not developed a water quality criterion for a specific pollutant that is present in the effluent and has reasonable potential, the permitting authority can establish effluent limits using numeric water quality criterion;

d. Basin Plan objectives and implementation provisions for toxicity;

e. Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs Final May 31, 1996;

f. Whole Effluent Toxicity (WET) Control Policy July 1994; and,

g. Technical Support Document (several chapters and Appendix B).

However, the circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential were under review by the State Water Resources Control Board (State Board) in SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, at a public hearing, the State Board adopted Order No. 2003-0012 deferring the issue of numeric chronic toxicity effluent limitations until Phase II of the SIP is adopted. In the mean time, the State Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. This permit contains a similar chronic toxicity effluent limitation. This Order also contains a reopener to allow the Regional Board to modify the permit, if necessary, consistent with any new policy, law, or regulation.

Acute Toxicity Limitation:

The Dischargers may test for Acute toxicity by using USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, October 2002 (EPA-821-R-02-012). Acute toxicity provisions in the accompanying Order are derived from the Basin Plan's toxicity standards (Basin Plan 3-16 and 3-17). The provisions require the Discharger to accelerate acute toxicity monitoring and take further actions to identify the source of toxicity and to reduce acute toxicity.

Chronic Toxicity Limitation and Requirements:

Chronic toxicity provisions in the accompanying Order are derived from the Basin Plan's toxicity standards (Basin Plan 3-16 and 3-17). The provisions require the Discharger to accelerate chronic toxicity monitoring and take further actions to identify the source of toxicity and to reduce chronic toxicity. The monthly median trigger of 1.0 TU_c for chronic toxicity is based on *USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity (WET) Programs* Final May 31, 1996 (Chapter 2 – Developing WET Permitting Conditions, page 2-8). In cases where effluent receives no dilution or where mixing zones are not allowed, the l.0 TU_c chronic criterion should be expressed as a monthly median. The "median" is defined as the middle value in a distribution, above which and below which lie an equal number of values. For example, if the results of the WET testing for a month were 1.5, 1.0, and 1.0 TU_c, the median would be 1.0 TU_c.

The *USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity (WET) Programs* Final May 31, 1996 (Chapter 2 – Developing WET Permitting Conditions, page 2-8) recommends two alternatives: using 2.0 TUc as the maximum daily limit; or using a statistical approach to develop a maximum daily effluent limitation.

D. Limits for priority pollutants and other toxics for Discharge Serial Nos. 001 and 002:

CTR #[1]	Constituent	Units	Discharge Limitations	
			Monthly Average	Daily Maximum
1	Antimony [2,3,4]	µg/L	6	--
		lbs/day[8]	0.6	--
2	Arsenic [2,3,4]	µg/L	50	--
		lbs/day[8]	5	--
8	Mercury[4, 7]	µg/L	0.051	0.10
		lbs/day[8]	0.0054	0.011
9	Nickel [2,3,4]	µg/L	100	--
		lbs/day[8]	10	--
10	Selenium [2,3,4]	µg/L	50	--
		lbs/day[8]	5	--
13	Zinc [3,4,5]	µg/L	5000	--
		lbs/day[8]	500	--
14	Cyanide [4,6]	µg/L	4.1	8.9
		lbs/day[8]	0.43	0.93
18	Acrylonitrile [4,7]	µg/L	0.66	1.3
		lbs/day[8]	0.069	0.14
38	Tetrachloroethylene [2,4]	µg/L	5	--
		lbs/day[8]	0.5	--
68	Bis(2-ethylhexyl)phthalate [2,4]	µg/L	4	--
		lbs/day[8]	0.4	--
77	p-Dichlorobenzene [2,4] (1,4-Dichlorobenzene)	µg/L	5	--
		lbs/day[8]	0.5	--
105	Lindane (Gamma-BHC) [2,4]	µg/L	0.2	--
		lbs/day[8]	0.02	--
	Iron [4,5]	µg/L	300	--
		lbs/day[8]	30	--

Footnotes:

[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]. This limit was included in Order No. 95-081. The limit is based on an MCL (Maximum Contaminant Level) or State Drinking Water Levels. MCLs are derived from health-based criteria (by USEPA from MCL goals; by DHS from one-in-a-million, or 10-6, incremental cancer risk estimates for carcinogens, and from threshold toxicity levels for non-carcinogens). These are applied to protect MUN and GWR beneficial uses. Additional monitoring will be required for future reasonable potential analysis (RPA). If new data indicates that there is RPA to exceed the California Toxics Rule (CTR) criteria, the permit will be reopened to modify the limits, at the next practicable Board meeting.

[3]. Concentration expressed as total recoverable.

[4]. This constituent shows reasonable potential to cause or to contribute to an exceedance of a water quality objective (WQO).

[5]. This limit was included in Order No. 95-081. The limit was originally based on the USEPA document, *Quality Criteria for Water 1986* [EPA 440/5-86-001, May 1, 1986], also referred to as the *Gold Book*. In November 2002, USEPA adopted *National Recommended Water Quality Criteria:2002*, which replaced the *Gold Book*. USEPA's *National Recommended Water Quality Criteria:2002*, contains the same WQO for this pollutant that was in the *Gold Book*.

[6]. This limit is based on most stringent CTR criteria [Criterion Continuous Concentration (CCC)] for the protection of freshwater aquatic life. To arrive at this calculated limitation, the CTR CCC was adjusted, according to SIP Section 1.4.

Federal Register Vol. 65, No. 97, page 31689, discusses the basis for the aquatic life criteria in the CTR. The Criterion Maximum Concentration (CMC), a short term concentration limit, and the Criterion Continuous Concentration (CCC), a four day concentration limit, are designed to provide protection of aquatic life and its uses from acute and chronic toxicity to animals and plants. The criteria are intended to identify average pollutant concentrations which will produce water quality generally suited to maintenance of aquatic life and designated uses while restricting the duration of excursions over the average so that total exposures will not cause unacceptable adverse effects.

Federal Register Vol. 65, No. 97, page 31691, discusses how CCC is intended to be the highest concentration that could be maintained indefinitely in a water body without causing an unacceptable effect on aquatic community or its uses.

[7]. Based on most stringent CTR criteria for the protection of human health from consumption of organisms only. These limitations were calculated in accordance with the procedures specified in the SIP Section 1.4, where, the average monthly effluent limitation (AMEL) is equal to the CTR human health criteria, and the daily maximum effluent limitation (DMEL) is equal to the product of the CTR human health criteria and a multiplying factor.

[8]. The mass emission rates are based on the existing plant design flow rate of 12.6 mgd, and are calculated as follows: Flow(MDG) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will incrementally increase to 21.6 MGD, as the phased plant upgrade approaches completion, by the fall 2004. The mass-based effluent limitation will accordingly be modified upon certification and approval of increased treatment plant capacity. 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.

E. Basis for priority pollutants:

Mixing zones, dilution credits, and are not used in the accompanying order and would be inappropriate to grant in light of the following factors:

a. The Valencia WRP discharge contributes the largest flow into the Santa Clara watershed in the vicinity of the discharge point; it overwhelms the receiving water providing limited mixing and dilution;

b. Even in the absence of the Valencia WRP discharge, the receiving water primarily consists of nuisance flows and other effluents, limiting its ability to assimilate additional waste;

c. Several reaches of the Santa Clara River [including those subject to this Order] are 303(d) listed (i.e, impaired) for certain constituents;

d. Impaired waters do not have the capacity to assimilate pollutants of concern at concentrations greater than the applicable objective;

e. For the protection of the beneficial uses, such as rare, threatened, or endangered species,

f. For the protection of warm freshwater habitat;

g. For the protection of the beneficial uses, such as estuarine habitat; marine habitat; wildlife habitat;

h. Consistent with Antidegradation Policies;

i. Because a mixing zone study has not been conducted; and,

j. Because a hydrologic model of the discharge and the receiving water has not been conducted.

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.

On July 16, 2003, the State Board adopted Order No. WQO 2003-0009, directing Regional Board staff to work with CSDLAC, once data was provided, to determine whether dilution and attenuation are appropriate factors to consider in developing effluent limits to protect the GWR beneficial use, in the Whittier Narrows WRP NPDES permit. However, this does not apply to the Saugus or Valencia WRPs, because CSDLAC has not provided the necessary site-specific data or studies regarding the ground water basins in the Santa Clarita or Valencia areas.

F. Example calculation: Mercury

Is a limit required? What is RPA?

a. From Attachment A, *Reasonable Potential & Limit Derivation*, we determined that Reasonable potential analysis (RPA) = Yes, therefore a limit is required.

Step 1: Identify applicable water quality criteria.

From California Toxics Rule (CTR), we can obtain the Criterion Maximum Concentration (CMC) and the Criterion Continuous Concentration (CCC).

Freshwater Aquatic Life Criteria:
CMC = NA µg/L (CTR page 31712, column B1) and
CCC = NA µg/L (CTR page 31712, column B1); and
Human Health Criteria for Water & Organisms = 0.051µg/L (CTR page 31712, column D2).

Step 2: Calculate effluent concentration allowance (ECA)

ECA = Criteria in CTR, since no dilution is allowed.

Step 3: Determine long-term average (LTA) discharge condition

i. Calculate CV:

CV = Standard Deviation / Mean
= 0.6 (By default because data was > 80% nondetect, SIP page 6)

ii. Find the ECA Multipliers from SIP Table 1 (page 7), or by calculating them using equations on SIP page 6. When CV = 0.6, then:

ECA Multiplier acute = 0.321 and
ECA Multiplier acute = 0.527.

iii. LTA acute = ECA acute x ECA Multiplier acute
= NA µg/L x 0.321 = NA µg/L

iv. LTA chronic = ECA chronic x ECA Multiplier chronic
= NA µg/L x 0.527 = NA µg/L

Step 4: Select the lowest LTA

In this case, the lowest LTA is not applicable.

Step 5: Calculate the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for AQUATIC LIFE

i. Find the multipliers. You need to know CV and n (frequency of sample collection per month). If effluent samples are collected 4 times a month or less, then n = 4. CV was determined to be 0.6 in a previous step.

AMEL Multiplier = 1.552
MDEL Multiplier = 3.114

ii. AMEL aquatic life = lowest LTA (from Step4) x AMEL Multiplier
= NA µg/L x 1.552 = NA µg/L

iii. MDEL aquatic life = lowest LTA (from Step4) x AMEL Multiplier
= NA µg/L x 3.114 = NA µg/L

Step 6: Find the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for HUMAN HEALTH

i. Find factors. Given CV = 0.6 and n = 4.

For AMEL human health limit, there is no factor.
The MDEL/AMEL human health factor = 2.01

ii. AMEL human health = ECA = 0.051 µg/L

iii. MDEL human health = ECA x MDEL/AMEL factor
= 0.051 µg/L x 2.01 = 0.102 µg/L

Step 7: Compare the AMELs for Aquatic life and Human health and select the lowest. Compare the MDELs for Aquatic life and Human health and select the lowest

i. Lowest AMEL = 0.051 µg/L (Based on Human Health protection)

ii. Lowest MDEL = 0.102 µg/L (Based on Human Health protection)

G. A numerical 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. 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.

H. The numeric limitations contained in the accompanying Order were derived using best professional judgement and are based on applicable state and federal authorities, and as they are met, will be in conformance with the goals of the aforementioned water quality control plans, and water quality criteria;

and will protect and maintain existing and potential beneficial uses of the receiving waters.

X. INTERIM REQUIREMENTS

1. <u>Pollutant Minimization Program</u>

A. The accompanying Order provides for the use of Pollutant Minimization Program, developed in conformance with Section 2.4.5.1 of the SIP, when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the 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 above, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organisms tissue sampling) that a priority pollutant is present in the discharger's effluent above an effluent limitation.

B. The Discharger shall develop 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:

i. A sample result is reported as detected but not quantified (DNQ) and the effluent limitation is less than the reported ML; or

ii. A sample result is reported as nondetect (ND) and the effluent limitation is less than the MDL.

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

i. sample results reported as DNQ when the effluent limitation is less than the method detection limit (MDL);

ii. 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;

iii. presence of whole effluent toxicity;

iv. health advisories for fish consumption; or,

v. results of benthic or aquatic organism tissue sampling.

C. 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.

D. 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 the accompanying 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 the accompanying 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, when necessary, Use Attainability Analyses (UAA), and modifications to and/or construction of, treatment facilities. If it is determined that a SSO or UAA is necessary, 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.

2. Interim Limits

A. The Valencia WRP may not be able to achieve immediate compliance with the limits for mercury, cyanide, and acrylonitrile contained in Section I.A.2.(b). Data submitted in previous self-monitoring reports indicate that mercury, cyanide, and acrylonitrile have been detected in the effluent, at least once, at a concentration greater than the new limit proposed in the accompanying Order.

B. 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 based on the CTR for CTR-based priority pollutants limits 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 prescribed in this Order for which the Discharger will not be able to meet immediately, interim limits and compliance dates are provided in an accompanying Time Schedule Order.

C. 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. In fact, the five-year compliance schedule is based on the maximum duration compliance schedule available because the Regional Board anticipates it will take longer than five years to achieve the final limits.

Table A1

CSDLAC - Valencia WRP
Nitrogen Species Effluent Data

Date		Ammonia (mg/L)	Date	Nitrate (mg/L-N)	Nitrite (mg/L-N)	Nitrate + Nitrite
1/17/1995		11.3	1/17/1995	8.24	1.53	9.77
2/16/1995		15	2/16/1995	7.35	2.11	9.46
3/13/1995		10.6	3/13/1995	8.24	1.83	10.07
4/4/1995		13	4/4/1995	6.1	1.83	7.93
4/18/1995		13.9	5/23/1995	4.09	2.02	6.11
4/20/1995		11.1	6/12/1995	2.37	1.55	3.92
4/23/1995		7.8	7/18/1995	6.14	2.03	8.17
4/25/1995		12.7	8/28/1995	3.22	1.6	4.82
4/27/1995		10.7	9/13/1995	16.43	1.7	18.13
4/30/1995		11	10/24/1995	8.1	1.75	9.85
5/2/1995		13.7	11/21/1995	7.42	2.54	9.96
5/4/1995		16.1	12/6/1995	7.49	1.22	8.71
5/7/1995		8.5	1/10/1996	7.16	2.56	9.72
5/23/1995		18.7	2/12/1996	3.04	1.5	4.54
5/25/1995		19.1	3/4/1996	4.12	2.48	6.6
6/6/1995		20.8	4/24/1996	12.12	2.42	14.54
6/9/1995		22.4	5/6/1996	2.37	1.77	4.14
6/12/1995		19.7	6/5/1996	4.23	1.24	5.47
6/26/1995		5.5	7/15/1996	3.23	0.98	4.21
6/28/1995		18.2	8/13/1996	3.71	0.77	4.48
6/30/1995		14.8	9/17/1996	2.72	0.81	3.53
7/9/1995		7	10/23/1996	5.25	0.45	5.7
7/10/1995		6.3	11/12/1996	4.04	0.61	4.65
7/11/1995		21.4	12/3/1996	8.84	1.16	10
7/14/1995		17.1	1/21/1997	3.15	0.96	4.11
7/18/1995		17.5	2/12/1997	7.24	0.25	7.49
7/23/1995		9.4	3/3/1997	3.42	0.19	3.61
7/26/1995		14.8	4/1/1997	5.32	0.38	5.7
7/30/1995		18.1	5/6/1997	3.08	0.45	3.53
8/7/1995		6.7	6/10/1997	2.94	0.34	3.28
8/7/1995		7	7/23/1997	5.12	4.7	9.82
8/8/1995		8.8	8/5/1997	6.3	0.44	6.74
8/11/1995		14	9/25/1997	5.41	0.18	5.59
8/27/1995		8.15	10/29/1997	0.97	1.19	2.16
8/28/1995		14	11/17/1997	8.71	1.03	9.74
8/29/1995		11	12/9/1997	7.9	1.55	9.45
8/31/1995		16.3	1/13/1998	0.36	0.76	1.12
9/5/1995		10.2	2/24/1998	0.66	1.75	2.41
9/7/1995		15.7	3/29/1998	0.43	0.93	1.36
9/10/1995		10.6	4/21/1998	6.94	2.58	9.52
9/13/1995		11.3	4/29/1998	2.44	1.54	3.98
9/19/1995		13.4	5/19/1998	3.14	2.21	5.35
9/21/1995		14.6	6/9/1998	5.29	1.37	6.66
9/24/1995		7.08	7/21/1998	3.12	0.61	3.73
10/4/1995		21.4	8/18/1998	6.22	1.24	7.46
10/5/1995		15.6	9/1/1998	4.43	1.74	6.17
10/24/1995		14.8	10/28/1998	9.01	2.65	11.66
11/1/1995		19.6	11/4/1998	9.38	1.88	11.26
11/2/1995		17.1	12/20/1998	1.28	2.13	3.41
11/7/1995		11.1	1/13/1999	7.52	1.71	9.23
11/21/1995		17.9	2/24/1999	6.8	2.42	9.22
12/4/1995		15.5	3/24/1999	7.52	1.91	9.43
12/5/1995		17.4	4/27/1999	2.45	1.5	3.95

Table A1

CSDLAC - Valencia WRP
Nitrogen Species Effluent Data

Date		Ammonia (mg/L)	Date	Nitrate (mg/L-N)	Nitrite (mg/L-N)	Nitrate + Nitrite
12/6/1995		20.3	5/10/1999	2.11	1.34	3.45
12/8/1995		22.7	6/15/1999	2.68	1.05	3.73
1/10/1996		20.9	7/13/1999	1.81	1.59	3.4
1/25/1996		20.6	8/10/1999	3.31	1.2	4.51
2/12/1996		16.8	9/13/1999	3.03	1.21	4.24
2/14/1996		21.4	10/21/1999	6.28	0.82	7.1
2/15/1996		20.5	11/28/1999	2.94	1.78	4.72
3/3/1996		10.8	12/14/1999	1.79	1.16	2.95
3/4/1996		19.3	1/19/2000	3.28	1.9	5.18
3/5/1996		21.5	2/14/2000	2.41	1.33	3.74
3/7/1996		17.3	3/14/2000	2.44	1.73	4.17
4/3/1996		21.3	4/19/2000	5.32	2.2	7.52
4/24/1996		16.5	5/17/2000	4.81	3.32	8.13
5/6/1996		18.6	6/1/2000	5.98	1.65	7.63
5/7/1996		21.9	7/11/2000	7.35	2.63	9.98
5/10/1996		16.1	8/16/2000	3	1.88	4.88
5/12/1996		13.7	9/21/2000	4.93	1.52	6.45
6/5/1996		16	10/4/2000	8.35	0.76	9.11
6/18/1996		10.7	11/15/2000	6.87	1.86	8.73
6/20/1996		12.9	12/6/2000	6.95	2.37	9.32
6/23/1996		10.4	1/10/2001	5.92	2.76	8.68
7/7/1996		9.7	2/8/2001	4.45	2.94	7.39
7/9/1996		16.7	3/14/2001	5.9	1.42	7.32
7/15/1996		16.3	4/2/2001	0.32	1.56	1.88
7/23/1996		19.4	5/7/2001	0.16	3.17	3.33
7/28/1996		11.7	6/12/2001	2.78	4.98	7.76
8/8/1996		17.9	7/16/2001	5.24	1.72	6.96
8/11/1996		10.7	8/20/2001	1.14	2.68	3.82
8/13/1996		18	9/12/2001	1.38	5.58	6.96
9/3/1996		16.4	10/23/2001	1.98	3.28	5.26
9/5/1996		17.9	11/13/2001	1.1	1.92	3.02
9/8/1996		8.31	12/10/2001	0.88	1.49	2.37
9/17/1996		17.8	1/14/2002	1.88	3.06	4.94
10/1/1996		21.5	2/11/2002	1.62	2.42	4.04
10/3/1996		19.5	3/26/2002	1.34	3.42	4.76
10/6/1996		11.1	4/1/2002	0.77	2.36	3.13
10/23/1996		24.6	5/20/2002	1.53	3.24	4.77
11/12/1996		22.9	6/3/2002	2.06	3.09	5.15
11/12/1996		24.9	7/17/2002	2.87	3.78	6.65
11/14/1996		23	8/13/2002	0.1	2.72	2.82
11/17/1996		13.2	9/11/2002	0.96	2.99	3.95
12/3/1996		19.8	10/7/2002	1.3	3.84	5.14
12/8/1996		13.3	11/11/2002	3.32	2.71	6.03
12/12/1996		21.5	12/16/2002	4.61	1.96	6.57
1/12/1997		13.4	1/6/2003	3.8	1.72	5.52
1/21/1997		28.3	2/24/2003	3.93	2.39	6.32
2/2/1997		11.3	3/3/2003	3.17	2.57	5.74
2/4/1997		18.7	4/9/2003	2.03	2.65	4.68
2/6/1997		24.2	5/20/2003	12.38	0.83	13.21
2/12/1997		24.2	6/8/2003	2.7	1.08	3.78
3/2/1997		15.2	7/16/2003	7.18	0.32	7.5
3/3/1997		18.8				
3/4/1997		24.5				

Table A1

CSDLAC - Valencia WRP
Nitrogen Species Effluent Data

Date		Ammonia (mg/L)	Date	Nitrate (mg/L-N)	Nitrite (mg/L-N)	Nitrate + Nitrite
3/6/1997		19				
4/1/1997		21				
4/20/1997		13.3				
4/22/1997		26				
4/24/1997		22.8				
5/6/1997		17.1				
5/18/1997		13.1				
5/20/1997		24.4				
5/22/1997		17.4				
6/10/1997		21.7				
6/15/1997		12.4				
6/17/1997		23.2				
6/19/1997		16.8				
7/22/1997		22.7				
7/23/1997		18.3				
7/24/1997		22.7				
7/27/1997		10.5				
8/5/1997		15.5				
8/12/1997		15.1				
9/16/1997		18.9				
9/18/1997		15.7				
9/21/1997		10				
9/23/1997		20.8				
9/25/1997		13.6				
9/25/1997		15.9				
9/28/1997		10.7				
10/14/1997		17.9				
10/16/1997		21				
10/19/1997		9.18				
10/29/1997		16.5				
11/11/1997		18.7				
11/13/1997		16				
11/16/1997		10.5				
11/17/1997		14.8				
12/2/1997		6.99				
12/4/1997		10.5				
12/7/1997		6.26				
12/9/1997		12.5				
1/13/1998		31.5				
1/20/1998		31.7				
1/22/1998		32.2				
1/25/1998		16				
2/17/1998		27.8				
2/19/1998		25.7				
2/22/1998		11.8				
2/24/1998		17.8				
3/17/1998		25				
3/19/1998		21.7				
3/29/1998		18.5				
4/21/1998		12.8				
4/23/1998		21.1				
4/26/1998		15.3				
4/29/1998		21.3				

Table A1

CSDLAC - Valencia WRP
Nitrogen Species Effluent Data

Date		Ammonia (mg/L)	Date	Nitrate (mg/L-N)	Nitrite (mg/L-N)	Nitrate + Nitrite
5/19/1998		19.2				
5/19/1998		21.7				
5/21/1998		20				
5/24/1998		6.4				
6/9/1998		22.7				
6/9/1998		22.1				
6/11/1998		18.1				
6/14/1998		13.3				
7/21/1998		20.3				
7/21/1998		16.4				
7/23/1998		23.3				
7/26/1998		13.5				
8/11/1998		15.2				
8/13/1998		14				
8/16/1998		6.53				
8/18/1998		16				
9/1/1998		20.3				
9/22/1998		16.9				
9/24/1998		13.3				
9/27/1998		4.59				
10/20/1998		15				
10/22/1998		15.1				
10/25/1998		10.6				
10/28/1998		22.3				
11/4/1998		20.3				
11/10/1998		21.7				
11/12/1998		14.8				
11/15/1998		12.1				
12/8/1998		20.9				
12/10/1998		20.7				
12/13/1998		14				
12/20/1998		14.1				
1/13/1999		13.2				
1/19/1999		19.9				
1/21/1999		20.8				
1/24/1999		11.5				
2/9/1999		10.7				
2/11/1999		15.3				
2/14/1999		8.92				
2/24/1999		11.9				
3/9/1999		11.3				
3/11/1999		19.2				
3/14/1999		18.9				
3/24/1999		12.4				
4/13/1999		18				
4/14/1999		17.2				
4/15/1999		18.8				
4/18/1999		14				
4/27/1999		14.8				
5/10/1999		0.7				
5/11/1999		20.1				
5/13/1999		20.6				
5/17/1999		15.4				

Table A1

CSDLAC - Valencia WRP
Nitrogen Species Effluent Data

Date		Ammonia (mg/L)	Date	Nitrate (mg/L-N)	Nitrite (mg/L-N)	Nitrate + Nitrite
6/1/1999		18.9				
6/3/1999		20.2				
6/6/1999		18.7				
6/15/1999		21.4				
7/6/1999		19.1				
7/8/1999		18.1				
7/11/1999		15.8				
7/13/1999		20.2				
8/10/1999		16.8				
8/17/1999		16.7				
8/19/1999		17.4				
8/22/1999		12.7				
9/7/1999		21.3				
9/9/1999		16				
9/12/1999		12.5				
9/13/1999		14.4				
10/21/1999		15.7				
10/26/1999		14.3				
10/28/1999		14.8				
10/31/1999		14.1				
11/9/1999		12.1				
11/11/1999		17.2				
11/14/1999		13.4				
11/28/1999		14.1				
12/14/1999		22.4				
12/28/1999		23.4				
12/30/1999		20.1				
1/2/2000		16.2				
1/18/2000		23.8				
1/19/2000		19.3				
1/20/2000		18.5				
1/23/2000		19.6				
2/8/2000		13.7				
2/14/2000		14.1				
3/1/2000		17.1				
3/2/2000		18.1				
3/5/2000		12.9				
3/14/2000		22.4				
4/19/2000		17.5				
4/25/2000		21.8				
4/27/2000		26.4				
4/30/2000		29				
5/17/2000		12.2				
5/23/2000		19.2				
5/25/2000		17.1				
5/28/2000		18.9				
6/1/2000		18.8				
6/20/2000		23.6				
6/22/2000		25.4				
6/25/2000		19.5				
7/11/2000		10.2				
7/25/2000		31.5				
7/27/2000		23.6				

Table A1

CSDLAC - Valencia WRP
Nitrogen Species Effluent Data

Date		Ammonia (mg/L)	Date	Nitrate (mg/L-N)	Nitrite (mg/L-N)	Nitrate + Nitrite
7/30/2000		17.6				
8/15/2000		27				
8/16/2000		20.9				
8/17/2000		25				
8/20/2000		18.1				
9/12/2000		14.2				
9/14/2000		17.3				
9/17/2000		9.68				
9/21/2000		12.7				
10/4/2000		12.2				
10/17/2000		13.9				
10/19/2000		11.7				
10/22/2000		10.6				
10/31/2000		15.6				
11/2/2000		13				
11/5/2000		18.1				
11/5/2000		13.5				
11/15/2000		14.4				
12/5/2000		20				
12/6/2000		14.7				
12/7/2000		19.1				
12/10/2000		14.9				
1/10/2001		15.8				
1/16/2001		29.5				
1/18/2001		23.7				
1/21/2001		20.1				
2/8/2001		21.8				
2/13/2001		12.9				
2/15/2001		10.1				
2/18/2001		12.6				
3/6/2001		15.1				
3/8/2001		16.8				
3/11/2001		17.8				
3/14/2001		13.9				
3/24/2001		19.3				
4/2/2001		23.6				
4/3/2001		26.4				
4/5/2001		26				
4/8/2001		14.5				
5/7/2001		24.2				
5/8/2001		26.3				
5/10/2001		26.9				
5/13/2001		21.5				
6/5/2001		20.1				
6/7/2001		22.3				
6/10/2001		11.4				
6/12/2001		17.1				
7/10/2001		25				
7/12/2001		29.1				
7/16/2001		26.9				
7/17/2001		28.7				
7/19/2001		23.8				
7/22/2001		16.4				

Table A1

CSDLAC - Valencia WRP
Nitrogen Species Effluent Data

Date		Ammonia (mg/L)	Date	Nitrate (mg/L-N)	Nitrite (mg/L-N)	Nitrate + Nitrite
7/22/2001		12.3				
8/7/2001		27.3				
8/9/2001		19.4				
8/12/2001		18.8				
8/20/2001		17.6				
9/12/2001		17.9				
9/18/2001		21.5				
9/20/2001		25.7				
9/23/2001		20.4				
10/9/2001		27.4				
10/11/2001		26.6				
10/14/2001		20				
10/23/2001		24.5				
11/11/2001		25.3				
11/13/2001		28				
11/13/2001		27.2				
11/15/2001		29.6				
12/10/2001		28.3				
12/11/2001		29.4				
12/13/2001		23.8				
12/16/2001		21.7				
1/1/2002		26				
1/3/2002		36.1				
1/6/2002		25				
1/14/2002		22.4				
2/11/2002		23				
2/19/2002		26.3				
2/21/2002		27.9				
2/24/2002		19.3				
3/19/2002		23.5				
3/21/2002		25.3				
3/26/2002		27.4				
3/26/2002		26.9				
3/28/2002		27.8				
4/1/2002		22.7				
4/2/2002		29.7				
4/4/2002		24.7				
4/7/2002		22.2				
4/30/2002		25.4				
5/2/2002		30.1				
5/5/2002		22.5				
5/20/2002		20.6				
6/3/2002		21.8				
6/18/2002		26.8				
6/20/2002		24.9				
6/23/2002		19.2				
7/17/2002		22.4				
7/23/2002		21.9				
7/25/2002		25.3				
7/28/2002		20.2				
8/6/2002		27.5				
8/8/2002		27.4				
8/11/2002		20.9				

Table A1

CSDLAC - Valencia WRP
Nitrogen Species Effluent Data

Date		Ammonia (mg/L)	Date	Nitrate (mg/L-N)	Nitrite (mg/L-N)	Nitrate + Nitrite
8/13/2002		25.2				
9/3/2002		27.1				
9/5/2002		26.5				
9/8/2002		14.9				
9/11/2002		23.7				
10/1/2002		13.8				
10/2/2002		14.3				
10/3/2002		14.9				
10/6/2002		16.8				
10/7/2002		18.9				
11/11/2002		17.1				
11/17/2002		13.6				
11/19/2002		20.9				
11/21/2002		17				
12/12/2002		24.3				
12/15/2002		21.2				
12/16/2002		17.4				
1/6/2003		22.4				
1/14/2003		29.7				
1/16/2003		27				
1/19/2003		16.2				
2/18/2003		19.4				
2/20/2003		21.6				
2/23/2003		20.7				
2/24/2003		15.7				
3/3/2003		18.5				
3/4/2003		24.4				
3/6/2003		23.2				
3/9/2003		19.8				
4/9/2003		22.6				
4/22/2003		18.2				
4/24/2003		19.6				
4/27/2003		18.2				
5/13/2003		6.52				
5/15/2003		5.86				
5/18/2003		5.2				
5/20/2003		6.2				
6/8/2003		4.6				
6/10/2003		5.36				
6/12/2003		5.52				
6/15/2003		3.89				
7/15/2003		1.69				
7/16/2003		0.56				
7/17/2003		1.27				
7/20/2003		1.65				
MAX		36.1		16.43	5.58	18.13
MIN		0.56		0.1	0.18	1.12
AVE		17.85		4.394326923	1.855769231	6.250096154
STDEV		6.08		2.933374995	1.011647404	2.933435143
CV		0.34		0.667536814	0.545136425	0.469342402

Table A2

CSDLAC - Valencia WRP
Temperature and pH Summary

	VALENCIA	VALENCIA	VALENCIA	VALENCIA	VALENCIA
	NPDES FLOW	FIN EFF S S	FIN EFF BOD	F E PH	FIN EFF TEMP
	(MG)	(MG/L)	(MG/L)	(NUMBER)	(DEGRESS F)
	12	22	37	51	61
Date	NPDES FLOW	FIN EFF S S	FIN EFF BOD	F E PH	FIN EFF TEMP
MIN	6.72	1	1	5.1	66
MAX	20.62	11	44	8.2	84
AVE	10.59471315	2.239404723	6.954954955	7.124524715	75.36755387
STDEV	1.648615243	0.868141732	5.047763538	0.154511435	3.746975009
CV	0.15560735	0.387666295	0.725779472	0.021687262	0.049716023

Table C1

CSDLAC - Valencia WRP
Chronic Toxicity Effluent Data

	Species: Ceriodaphnia dubia				Species: Fathead minnow (Pimephales)			
	Endpoints				Endpoints			
	Survival		Reproduction		Survival		Growth	
Date	NOEC %	TUc	NOEC %	TUc	NOEC %	TUc	NOEC %	TUc
1/22/1996	60	1.7	10	10.0				
2/12/1996	60	1.7	60	1.7				
3/4/1996	100	1.0	20	5.0				
4/3/1996	100	1.0	40	2.5				
5/8/1996	100	1.0	100	1.0				
6/20/1996	100	1.0	40	2.5				
7/25/1996					60	1.7	60	1.7
8/8/1996					100	1.0	60	1.7
9/5/1996					80	1.3	80	1.3
10/2/1996					60	1.7	40	2.5
11/13/1996					40	2.5	40	2.5
12/9/1996					60	1.7	40	2.5
1/7/1997					NA		NA	
1/9/1997					40	2.5	20	5.0
2/3/1997					80	1.3	40	2.5
3/4/1997					80	1.3	20	5.0
4/22/1997					40	2.5	40	2.5
5/20/1997					80	1.3	60	1.7
6/17/1997					100	1.0	60	1.7
7/24/1997	60	1.7	20	5.0				
8/14/1997	NA		NA					
9/18/1997	80	1.3	20	5.0				
9/25/1997	80	1.3	20	5.0				
10/16/1997	60	1.7	20	5.0				
11/13/1997	100	1.0	40	2.5				
12/4/1997	100	1.0	60	1.7				
Jan-98	40	2.5	40	2.5				
Feb-98	60	1.7	20	5.0				
Mar-98	60	1.7	20	5.0				
Apr-98	60	1.7	20	5.0				
May-98	100	1.0	80	1.3				
Jun-98	60	1.7	20	5.0				
Jul-98	40	2.5	20	5.0				
Aug-98	40	2.5	20	5.0				
Sep-98	80	1.3	40	2.5				
Oct-98	80	1.3	20	5.0				
Nov-98	80	1.3	20	5.0				
Dec-98	80	1.3	40	2.5				
Jan-99	80	1.3	20	5.0				
Feb-99	100	1.0	40	2.5				

Table C1

CSDLAC - Valencia WRP
Chronic Toxicity Effluent Data

Date	Species: Ceriodaphnia dubia				Species: Fathead minnow (Pimephales)			
	Endpoints				Endpoints			
	Survival		Reproduction		Survival		Growth	
	NOEC %	TUc	NOEC %	TUc	NOEC %	TUc	NOEC %	TUc
Mar-99	80	1.3	20	5.0				
Apr-99	80	1.3	20	5.0				
May-99	60	1.7	40	2.5				
Jun-99	80	1.3	40	2.5				
Jul-99	80	1.3	60	1.7				
Aug-99	60	1.7	20	5.0				
Sep-99	60	1.7	20	5.0				
Oct-99	40	2.5	20	5.0				
Nov-99	100	1.0	60	1.7				
Dec-99	60	1.7	60	1.7				
Jan-00	60	1.7	40	2.5				
Feb-00	80	1.3	60	1.7				
Mar-00	100	1.0	40	2.5				
Apr-00	60	1.7	20	5.0				
May-00	80	1.3	60	1.7				
Jun-00	60	1.7	20	5.0				
Jul-00	60	1.7	20	5.0				
Aug-00	60	1.7	40	2.5				
Sep-00	80	1.3	60	1.7				
Oct-00	100	1.0	80	1.3				
Nov-00	80	1.3	20	5.0				
Dec-00	80	1.3	40	2.5				
Jan-01	60	1.7	20	5.0				
Feb-01	80	1.3	60	1.7				
Mar-01	80	1.3	60	1.7				
Apr-01	40	2.5	20	5.0				
May-01	40	2.5	20	5.0				
Jun-01	40	2.5	20	5.0				
Jul-01	40	2.5	20	5.0				
Aug-01	40	2.5	20	5.0				
Sep-01	40	2.5	20	5.0				
Oct-01	40	2.5	40	2.5				
Nov-01	60	1.7	20	5.0				
Dec-01	60	1.7	20	5.0				
Jan-02	40	2.5	20	5.0				
Feb-02	40	2.5	20	5.0				
Mar-02	40	2.5	20	5.0				
Apr-02	40	2.5	20	5.0				
May-02	40	2.5	20	5.0				
Jun-02	40	2.5	20	5.0				

Table C1

CSDLAC - Valencia WRP
Chronic Toxicity Effluent Data

	Species: Ceriodaphnia dubia				Species: Fathead minnow (Pimephales)			
	Endpoints				Endpoints			
	Survival		Reproduction		Survival		Growth	
Date	NOEC %	TUc	NOEC %	TUc	NOEC %	TUc	NOEC %	TUc
Jul-02					20	5.0	20	5.0
Aug-02					20	5.0	20	5.0
Sep-02					40	2.5	20	5.0
Oct-02					100	1.0	100	1.0
Nov-02					100	1.0	60	1.7
Dec-02					20	5.0	20	5.0
MAX		2.5		10.0		5.0		5.0
MIN		1.0		1.0		1.0		1.0
AVE		1.7		3.9		2.2		2.9
STDEV		0.6		1.7		1.4		1.6
CV		0.3		0.4		0.7		0.5
COUNT		66.0		66.0		18.0		18.0

Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR	IRON	Antimony	Arsenic	1/2 Arsenic	Beryllium	Cadmium	1/2 Cadmium	Chromium VI	Total Chromium	Copper	1/2 Copper	Lead	1/2 Lead	Mercury
		1	2		3	4		5b	5b			7		8
	MG/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
8/22/1995			3.6	3.6	<0.01	<3	1.5		<10	<10	5	<20	10	<0.1
9/25/1995		1	1.6	1.6		<3	1.5	<20	<10	<10	5	<20	10	<0.1
9/26/1995														
11/14/1995		1.4	2.1	2.1	<0.01	<3	1.5	<20	<10	<10	5	<20	10	<0.1
11/15/1995														
1/23/1996														
1/30/1996														
2/7/1996														
3/19/1996		3.6	<1	0.5	<0.01	<3	1.5	<20	<10	10	10	<20	10	<0.1
3/20/1996														
3/21/1996														
5/20/1996		1.2	<1	0.5	<0.0005	<3	1.5	<20	<10	<10	5	<20	10	<0.1
5/21/1996														
7/18/1996														
7/25/1996														
8/1/1996														
9/17/1996		2.2	1	1	<0.01	<3	1.5	<20	<10	<10	5	<20	10	<0.1
9/18/1996														
11/18/1996		0.8	1.2	1.2	<0.0005	<3	1.5	<20	<10	<10	5	<20	10	<0.1
11/19/1996														
3/18/1997		0.8	<1	0.5	<0.0005	<3	1.5		10	<10	5	<20	10	<0.1
3/27/1997														
3/28/1997														
4/24/1997														
5/27/1997		0.6	<1	0.5	<0.0005	<3	1.5		<10	<10	5	<20	10	0.1
5/28/1997														
9/17/1997		0.7	1.2	1.2	<0.0025	<3	1.5		<10	<10	5	<20	10	<0.1
9/18/1997														
11/25/1997		0.5	1.4	1.4	<0.01	<3	1.5		<40	<10	5	<20	10	<0.1
11/26/1997														
12/2/1997														
3/24/1998		1	<1	0.5	<0.0025	<3	1.5		<40	<10	5	<20	10	<0.1
3/25/1998														
5/20/1998		0.6	1.3	1.3	<0.0025	<3	1.5		<40	<10	5	<20	10	0.4
5/21/1998														
5/26/1998														
9/1/1998		0.5	1.1	1.1	<0.0025	<3	1.5		<10	<10	5	<20	10	<0.1
9/2/1998														
11/23/1998		0.6	<1	0.5	<0.0025	<3	1.5		<10	<10	5	<20	10	<0.1
11/24/1998														
3/2/1999		0.9	1.1	1.1	<0.0025	<3	1.5		<10	<10	5	<20	10	0.1
3/3/1999														
5/18/1999		1.3	<1	0.5	<0.0025	<3	1.5		<10	<10	5	<20	10	0.1
5/19/1999														
5/20/1999														
9/14/1999		1	1.1	1.1	<0.0025	<2	1		<10	<10	5	<20	10	0.2
9/15/1999														
11/22/1999		1	<1	0.5	<0.0025	<2	1		<10	<10	5	<10	5	<0.1
11/23/1999														
11/29/1999														
3/14/2000		0.8	<1	0.5	<0.0025	<2	1		<10	<10	5	<20	10	0.1
3/15/2000														
3/16/2000														
5/16/2000		1.2	<1	0.5	<0.0025	<2	1		<10	<10	5	<10	5	0.5

Note: *Detected but not Quantified (DNQ) values are in italics.*
Other priority pollutants not listed were not detected inthe effluent.

Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR		1	2		3	4		5b	5b			7		8
	IRON	Antimony	Arsenic	1/2 Arsenic	Beryllium	Cadmium	1/2 Cadmium	Chromium VI	Total Chromium	Copper	1/2 Copper	Lead	1/2 Lead	Mercury
	MG/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
5/18/2000														
5/17/2000														
9/19/2000		0.9	**1.4**	**1.4**	<0.0025	<2	1		<10	<10	5	<10	5	**0.1**
9/20/2000														
11/28/2000		1.1	**1.2**	**1.2**	<0.0025	<2	1		<10	<10	5	<10	5	<0.1
11/29/2000														
3/13/2001		1	**1.1**	**1.1**	<0.0025	<2	1		<40	<10	5	<10	5	<0.1
3/14/2001														
5/15/2001														
5/22/2001														
5/23/2001		1.2	<1	0.5	<0.0025	<2	1		<10	<10	5	<10	5	<0.1
5/24/2001														
5/29/2001														
7/19/2001		2.5	<1	0.5	<0.0025	<2	1	<10	<10	<8	4	<10	5	<0.1
8/2/2001		2.2	<1	0.5	<0.0025	<2	1	<10	<10	<8	4	<10	5	<0.1
9/4/2001	0.09	1.1	<1	0.5	<0.0005	<0.4	0.2	<10	<10	**9**	**9**	<2	1	<0.1
9/12/2001	0.08	1.4	<1	0.5	<0.0005	<0.4	0.2	<10	<10	<8	4	**3**	**3**	<0.1
10/9/2001		1.6	<1	0.5	<0.0005	<0.4	0.2	<10	<10	<8	4	<2	1	<0.1
11/1/2001	0.08	1.1	<1	0.5	<0.0005	<0.4	0.2	<10	<10	<8	4	<2	1	<0.1
12/10/2001		1.8	**1.2**	**1.2**	<0.0005	<0.4	0.2	<10	<10	<8	4	<2	1	<0.1
1/7/2002		3.7	<1	0.5	<0.0005	*0.08*	*0.08*		<10	*8*	*8*	*1.9*	*1.9*	<0.1
1/8/2002								<10						
2/20/2002		1.3	**1.3**	**1.3**	<0.0005	*0.09*	*0.09*		<10	*6*	*6*	**2**	**2**	<0.1
2/21/2002								<10						
3/11/2002	0.09	1.8	*0.8*	*0.8*	<0.0005	*0.22*	*0.22*	<10	<10	*5*	*5*	**2**	**2**	<0.04
4/2/2002		1.3	*0.2*	*0.2*	<0.0005	*0.15*	*0.15*	<10	<10	*3*	*3*	*1.9*	*1.9*	<0.04
4/10/2002														
4/18/2002														
4/23/2002														
5/1/2002	0.09	1.1	*0.8*	*0.8*	<0.0005	*0.07*	*0.07*	<10	<10	*5*	*5*	*1.9*	*1.9*	<0.04
5/15/2002														
5/22/2002														
5/30/2002														
6/3/2002		1.1	*0.7*	*0.7*	*0.00038*	*0.15*	*0.15*	<10	<10	2	2	**2**	**2**	<0.04
6/13/2002														
6/19/2002														
6/27/2002														
7/1/2002		0.7	<1	0.5	<0.0005	*0.06*	*0.06*	<10	<10	*2*	*2*	*1.6*	*1.6*	<0.04
7/17/2002														
7/22/2002														
8/1/2002														
8/5/2002		0.7	*0.8*	*0.8*	<0.0005	*0.14*	*0.14*		<10	*7*	*7*	*1.93*	*1.93*	<0.04
8/6/2002								<10						
9/4/2002	0.1	1	*0.6*	*0.6*	<0.0005	*0.09*	*0.09*		<10	*4*	*4*	*1.61*	*1.61*	<0.04
9/5/2002								<10						
9/11/2002														
9/18/2002														
9/26/2002														
10/1/2002														
10/10/2002		1.2	*0.8*	*0.8*	<0.0005	*0.08*	*0.08*	<10	<10	2	2	*1.55*	*1.55*	<0.04
11/4/2002	0.11	1.1	*0.9*	*0.9*	<0.0005	<0.4	0.2		<10	2	2	*1*	*1*	<0.04
11/5/2002								<10						
12/4/2002		1.4	*0.5*	*0.5*	<0.0005	<0.4	0.2		<10	2	2	*1*	*1*	<0.04
12/5/2002								<10						

Note: *Detected but not Quantified (DNQ) values are in italics.*
Other priority pollutants not listed were not detected inthe effluent.

Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR		1	2		3	4		5b	5b			7		8
	IRON	Antimony	Arsenic	1/2 Arsenic	Beryllium	Cadmium	1/2 Cadmium	Chromium VI	Total Chromium	Copper	1/2 Copper	Lead	1/2 Lead	Mercury
	MG/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
1/8/2003	0.09	1	*0.5*	*0.5*	<0.0005	*0.1*	*0.1*	<10	<10	*2*	*2*	*1*	*1*	<0.04
3/17/2003														
3/24/2003														
4/1/2003														
4/8/2003	0.103	1	*0.7*	*0.7*	<0.0005	*0.1*	*0.1*		<10	<8	4	*1.6*	*1.6*	<0.04
4/9/2003	0.097	1	<1	0.5	<0.0005	*0.1*	*0.1*	<10	<10	<8	4	3	3	<0.04
7/8/2003	0.088	1	*0.8*	*0.8*	<0.0005	*0.1*	*0.1*		<10	*3*	*3*	2	2	<0.04
7/9/2003								<10						
7/16/2003														
MEC	0.11	3.7	3.6		0.00038	0.22	1.5	0	10	10		3		0.5
MAXIMUM	0.11	3.7	3.6		0.00038	0.22		0	10	10		3		0.5
MINIMUM	0.08	0.5	0.2		0.00038	0.06		0	10	2		1		0.1
DETECTS	11	47	28		1	14		0	1	16		17		8
COUNT	11	47	48		47	48		28	48	48		48		48
% NONDETECT	0	0	41.67		97.8723	70.8333		100	97.9167	66.67	66.67	64.5833		83.3333
ST DEVIATION	0.009	0.669		0.559	#DIV/0!		0.61804	#DIV/0!	#DIV/0!		1.602		3.86682	
AVERAGE	0.093	1.234		0.854	0.00038		0.80063	#DIV/0!	10		4.667		5.52063	
CV	0.1	0.542		0.655	#DIV/0!		0.77194	#DIV/0!	#DIV/0!		0.343		0.70043	
Default CV	0.1	0.5	0.7	0.7	0.6	0.8	0.8	0.6	0.6	0.3	0.3	0.7	0.7	0.6
ECA multipliers Table 1														
CV^2 +1	1.010	1.250	1.490	1.490	1.360		1.640	1.360	1.360	1.090	1.250	1.490	1.490	1.360
Sigma	0.100	0.472	0.631	0.631	0.555	#NUM!	0.703	0.555	0.555	0.294	0.472	0.631	0.631	0.555
Sigma ^2	0.010	0.223	0.399	0.399	0.307	#NUM!	0.495	0.307	0.307	0.086	0.223	0.399	0.399	0.307
Sigma 4	0.050	0.246	0.340	0.340	0.294	0.385	0.385	0.294	0.294	0.149	0.246	0.340	0.340	0.294
Sigma 4 ^2	0.002	0.061	0.116	0.116	0.086	0.148	0.148	0.086	0.086	0.022	0.061	0.116	0.116	0.086
Z 99 %ile	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326
0.5*Sigma^2	0.005	0.112	0.199	0.199	0.154	#NUM!	0.247	0.154	0.154	0.043	0.112	0.199	0.199	0.154
Z99% *Sigma	0.232	1.099	1.469	1.469	1.290	#NUM!	1.636	1.290	1.290	0.683	1.099	1.469	1.469	1.290
ECA Acute 99 multiplier	0.797	0.373	0.281	0.281	0.321	#NUM!	0.249	0.321	0.321	0.527	0.373	0.281	0.281	0.321
0.5*Sigma 4 ^2	0.001	0.030	0.058	0.058	0.043	0.074	0.074	0.043	0.043	0.011	0.030	0.058	0.058	0.043
Z99%ile*Sigma 4	0.116	0.573	0.791	0.791	0.683	0.896	0.896	0.683	0.683	0.347	0.573	0.791	0.791	0.683
ECA Chronic99 multiplier	0.891	0.581	0.481	0.481	0.527	0.440	0.440	0.527	0.527	0.715	0.581	0.481	0.481	0.527
Z 95%ile	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645
Z95% *Sigma 4	0.082	0.405	0.559	0.559	0.483	0.634	0.634	0.483	0.483	0.245	0.405	0.559	0.559	0.483
0.5*sigma 4 ^2	0.001	0.030	0.058	0.058	0.043	0.074	0.074	0.043	0.043	0.011	0.030	0.058	0.058	0.043
AMEL multiplier95	1.084	1.455	1.651	1.651	1.552	1.750	1.750	1.552	1.552	1.264	1.455	1.651	1.651	1.552
Z99% *Sigma	0.232	1.099	1.469	1.469	1.290	#NUM!	1.636	1.290	1.290	0.683	1.099	1.469	1.469	1.290
0.5* sigma^2	0.005	0.112	0.199	0.199	0.154	#NUM!	0.247	0.154	0.154	0.043	0.112	0.199	0.199	0.154
MDEL multiplier99	1.255	2.684	3.559	3.559	3.114	#NUM!	4.009	3.114	3.114	1.896	2.684	3.559	3.559	3.114
MDEL/AMEL Multiplier	1.157	1.845	2.156	2.156	2.006	#NUM!	2.291	2.006	2.006	1.500	1.845	2.156	2.156	2.006
MDEL/AMEL Multiplier	4.988	1.679	1.467	1.467	1.555	#NUM!	1.401	1.555	1.555	2.197	1.679	1.467	1.467	1.555

Note: *Detected but not Quantified (DNQ) values are in italics.*
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Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR		9	10		11		12	13	14		16	17	18	19	20
	1/2 Mercury	Nickel	Selenium	1/2 Selenium	Silver	1/2 Silver	Thallium	Zinc	Cyanide	1/2 Cyanide	2,3,7,8-TCDD	Acrolein	ACRYLONITRILE	Benzene	Bromoform
	µg/L	µg/L	MG/L	MG/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	UG/L	µg/L	UG/L	UG/L
8/22/1995	0.05	<20	<1	0.5	<10	5		50	<10	5					
9/25/1995	0.05	<20	1.1	1.1	<10	5	<2	50			<30				
9/26/1995									<10	5		<2.5	<1	<0.3	<0.5
11/14/1995	0.05	<20	<1	0.5	<10	5		60	<10	5					
11/15/1995														<0.3	<0.5
1/23/1996															
1/30/1996															
2/7/1996															
3/19/1996	0.05	<20	<1	0.5	<10	5	<2	50	<10	5					
3/20/1996											<3				
3/21/1996												<25	<1		<0.5
5/20/1996	0.05	<20	<1	0.5	<10	5		30	<10	5					
5/21/1996															<0.5
7/18/1996															
7/25/1996															
8/1/1996															
9/17/1996	0.05	<20	<1	0.5	<10	5	<2	40	<10	5	<3				
9/18/1996												<2.5	<1	0.3	<0.5
11/18/1996	0.05	<20	<1	0.5	<10	5		40	<10	5					
11/19/1996															<0.5
3/18/1997	0.05	<20	<1	0.5	<10	5	<1	40	<10	5					
3/27/1997											<2				
3/28/1997												<7.5	1.7	0.3	<0.5
4/24/1997															
5/27/1997	0.1	<20	1	1	<10	5		30	<10	5					
5/28/1997															<0.5
9/17/1997	0.05	<20	<1	0.5	<10	5	<1	50	<10	5	<1				
9/18/1997												<10	<10	<0.5	<1
11/25/1997	0.05	<20	1.4	1.4	<10	5		50	<10	5					
11/26/1997															<0.5
12/2/1997															
3/24/1998	0.05	<20	<1	0.5	<10	5	<1	30	<10	5	<2				
3/25/1998												<10	<10	<0.5	<1
5/20/1998	0.4	20	<1	0.5	<10	5		40	<10	5					
5/21/1998															<0.5
5/26/1998															
9/1/1998	0.05	<20	<1	0.5	<10	5	<1	50	<10	5	<2				
9/2/1998												<10	<10	<0.5	<1
11/23/1998	0.05	<20	<1	0.5	<10	5		30	<10	5					
11/24/1998															<1
3/2/1999	0.1	<20	<1	0.5	<10	5	<0.5	50	<10	5	<1				
3/3/1999												<10	<10	<0.3	<0.5
5/18/1999	0.1	<20	<1	0.5	<10	5		30	<10	5					
5/19/1999															<0.5
5/20/1999															
9/14/1999	0.2	<20	<1	0.5	<10	5	<1	40	<10	5	<2				
9/15/1999												<10	<10	<0.5	<1
11/22/1999	0.05	<20	<1	0.5	<10	5		40	<10	5					
11/23/1999															<0.5
11/29/1999															
3/14/2000	0.1	<20	<1	0.5	<10	5	<1	30	<10	5					
3/15/2000											<2				
3/16/2000												<10	<10	<0.3	<0.5
5/16/2000	0.5	<20	<1	0.5	<10	5		60	<10	5					

Note: *Detected but not Quantified (DNQ) values are in italics.*
Other priority pollutants not listed were not detected inthe effluent.

Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR		9	10		11		12	13	14		16	17	18	19	20
	1/2 Mercury	Nickel	Selenium	1/2 Selenium	Silver	1/2 Silver	Thallium	Zinc	Cyanide	1/2 Cyanide	2,3,7,8-TCDD	Acrolein	ACRYLONITRILE	Benzene	Bromoform
	µg/L	µg/L	MG/L	MG/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	UG/L	µg/L	UG/L	UG/L
5/18/2000															<0.5
5/17/2000															
9/19/2000	0.1	<20	1.3	1.3	<10	5	<1	40	<10	5	<2				
9/20/2000												<10	<10	<0.5	<0.5
11/28/2000	0.05	<20	<1	0.5	<10	5		40	<10	5					
11/29/2000															<0.5
3/13/2001	0.05	<40	<1	0.5	<10	5	<1	40	<10	5					
3/14/2001											<2	<10	<10	<0.5	<2
5/15/2001															
5/22/2001															
5/23/2001	0.05	<20	<1	0.5	<10	5		20	<10	5					
5/24/2001															<2
5/29/2001															
7/19/2001	0.05	<20	<1	0.5	0.042	0.042	<1	20	<5	2.5		<2	<2	<0.5	<0.5
8/2/2001	0.05	<20	<1	0.5	0.054	0.054	<1	20	<5	2.5		<2	<2	<0.5	<0.5
9/4/2001	0.05	<20	<1	0.5	0.093	0.093	<1	20	<5	2.5		<2	<2	<0.5	<0.5
9/12/2001	0.05	<20	<1	0.5	<25	12.5		30	<10	5		<10	<5	<0.5	<0.5
10/9/2001	0.05	<20	<1	0.5	0.115	0.115	<1	30	<5	2.5		<2	<2	<0.5	<0.5
11/1/2001	0.05	<20	<1	0.5	0.127	0.127	<1	30	<5	2.5		<2	<2	<0.5	<0.5
12/10/2001	0.05	<20	<1	0.5	0.13	0.13	<1	30	<10	5		<2	<2	<0.5	1
1/7/2002	0.05	<20	*0.6*	*0.6*	0.106	0.106	<1	30	<10	5					
1/8/2002												<2	<2	<0.5	1.9
2/20/2002	0.05	<20	*0.9*	*0.9*	0.35	0.35	<1	30	<10	5					
2/21/2002												<2	<2	<0.5	1.7
3/11/2002	0.02	<20	*0.9*	*0.9*	0.148	0.148	<1	30	*7*	*7*		<2	<2	<0.5	1.2
4/2/2002	0.02	<20	*0.8*	*0.8*	0.21	0.21	<1	40	*7*	*7*		<2	<2	<0.5	1.2
4/10/2002									<10	5					
4/18/2002									10	10					
4/23/2002									9	9					
5/1/2002	0.02	*8.8*	*0.7*	*0.7*	0.195	0.195	<1	40	*5*	*5*		<5	<3	<0.5	0.6
5/15/2002									<10	5					
5/22/2002									<10	5					
5/30/2002									24	24					
6/3/2002	0.02	<20	*0.6*	*0.6*	0.081	0.081	<1	40				<5	<3	<0.5	0.6
6/13/2002									<5	2.5					
6/19/2002									<10	5					
6/27/2002									*6*	*6*					
7/1/2002	0.02	<20	*0.5*	*0.5*	0.129	0.129	<1	30	<10	5		<2	<2	<0.5	0.8
7/17/2002									<10	5					
7/22/2002									<10	5					
8/1/2002									<10	5					
8/5/2002	0.02	<20	*0.5*	*0.5*	0.132	0.132	<1	30	*7*	*7*					
8/6/2002												<2	<2	<0.5	*0.4*
9/4/2002	0.02	<20	*0.5*	*0.5*	0.082	0.082	<1	30	*8*	*8*					
9/5/2002												<5	<3	<0.5	*0.3*
9/11/2002									<10	5					
9/18/2002									<10	5					
9/26/2002									<10	5					
10/1/2002									5	5					
10/10/2002	0.02	*6*	*0.4*	*0.4*	0.065	0.065	<1	30	<5	2.5		<5	<3	<0.5	*0.4*
11/4/2002	0.02	<20	*0.4*	*0.4*	0.087	0.087	<1	20	*8*	*8*					
11/5/2002												<10	<5	<0.5	0.5
12/4/2002	0.02	<20	*0.4*	*0.4*	*0.088*	*0.088*	<1	60	<10	5					
12/5/2002												<2	<2	<0.5	1.1

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Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR		9	10		11		12	13	14		16	17	18	19	20
	1/2 Mercury	Nickel	Selenium	1/2 Selenium	Silver	1/2 Silver	Thallium	Zinc	Cyanide	**1/2 Cyanide**	2,3,7,8-TCDD	Acrolein	**ACRYLONITRILE**	Benzene	Bromoform
	µg/L	µg/L	MG/L	MG/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	UG/L	µg/L	UG/L	UG/L
1/8/2003	0.02	<20	*0.6*	*0.6*	<0.25	0.125	<1	**60**	**14**	**14**	<0.9	<2	<2	<0.5	**0.9**
3/17/2003									**21**	**21**					
3/24/2003									**15**	**15**					
4/1/2003									**20**	**20**					
4/8/2003	0.02	<20	*0.4*	*0.4*	<0.25	0.125		**79**	**20**	**20**					
4/9/2003	0.02	<20	<1	0.5	<0.25	0.125	<1	**80**				<2	<2	0.5	**1**
7/8/2003	0.02	<20	*0.5*	*0.5*	<25	12.5	<1	**72**			<2.9				
7/9/2003												<2	<2	0.5	*0.4*
7/16/2003															
MEC		20	1.4		0.35		0	80	24		<0.9	0	1.7	0.5	1.9
MAXIMUM		20	1.4		0.35		0	80	24		<30	0	1.7	0.5	1.9
MINIMUM		6	0.4		0.042		0	20	5		<0.9	0	1.7	0,3	0.3
DETECTS		3	19		18		0	48	16		0	0	1	4	16
COUNT		48	48		48		33	48	64		14	34	34	34	46
% NONDETECT		93.75	60.417		62.5		100	0	75		100	100	97.059	88.24	65.22
ST DEVIATION	0.08751	7.4081		0.2186		3.1036	#DIV/0!	14.7		4.439	#DIV/0!	#DIV/0!	#DIV/0!	0.115	
AVERAGE	0.06625	11.6		0.5833		3.1794	#DIV/0!	39.8		6.383	#DIV/0!	#DIV/0!	1.7	0.4	
CV		0.6386		0.3748		0.9762	#DIV/0!	0.37		0.695	#DIV/0!	#DIV/0!	#DIV/0!	0.289	
Default CV		0.6	0.4	0.4	1	1	0.6	0.4	0.7	0.7	0.6	0.6	0.6	0.6	0.8
ECA multipliers Table 1															
CV^2 +1	1.000	1.360	1.160	1.160	2.000	2.000	1.360	1.160	1.490	1.490	1.360	1.360	1.360	1,360	1.640
Sigma	0.000	0.555	0.385	0.385	0.833	0.833	0.555	0.385	0.631	0.631	0.555	0.555	0.555	0.555	0.703
Sigma ^2	0.000	0.307	0.148	0.148	0.693	0.693	0.307	0.148	0.399	0.399	0.307	0.307	0.307	0.307	0.495
Sigma 4	0.000	0.294	0.198	0.198	0.472	0.472	0.294	0.198	0.340	0.340	0.294	0.294	0.294	0.294	0.385
Sigma 4 ^2	0.000	0.086	0.039	0.039	0.223	0.223	0.086	0.039	0.116	0.116	0.086	0.086	0.086	0.086	0.148
Z 99 %ile	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326
0.5*Sigma^2	0.000	0.154	0.074	0.074	0.347	0.347	0.154	0.074	0.199	0.199	0.154	0.154	0.154	0.154	0.247
Z99% *Sigma	0.000	1.290	0.896	0.896	1.937	1.937	1.290	0.896	1.469	1.469	1.290	1.290	1.290	1.290	1.636
ECA Acute 99 multiplier	1.000	0.321	0.440	0.440	0.204	0.204	0.321	0.440	0.281	0.281	0.321	0.321	0.321	0.321	0.249
0.5*Sigma 4 ^2	0.000	0.043	0.020	0.020	0.112	0.112	0.043	0.020	0.058	0.058	0.043	0.043	0.043	0.043	0.074
Z99%ile*Sigma 4	0.000	0.683	0.461	0.461	1.099	1.099	0.683	0.461	0.791	0.791	0.683	0.683	0.683	0.683	0.896
ECA Chronic99 multiplier	1.000	0.527	0.643	0.643	0.373	0.373	0.527	0.643	0.481	0.481	0.527	0.527	0.527	0.527	0.440
Z 95%ile	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645
Z95% *Sigma 4	0.000	0.483	0.326	0.326	0.777	0.777	0.483	0.326	0.559	0.559	0.483	0.483	0.483	0.483	0.634
0.5*sigma 4 ^2	0.000	0.043	0.020	0.020	0.112	0.112	0.043	0.020	0.058	0.058	0.043	0.043	0.043	0.043	0.074
AMEL multiplier95	1.000	1.552	1.358	1.358	1.945	1.945	1.552	1.358	1.651	1.651	1.552	1.552	1.552	1.552	1.750
Z99% *Sigma	0.000	1.290	0.896	0.896	1.937	1.937	1.290	0.896	1.469	1.469	1.290	1.290	1.290	1.290	1.636
0.5* sigma^2	0.000	0.154	0.074	0.074	0.347	0.347	0.154	0.074	0.199	0.199	0.154	0.154	0.154	0.154	0.247
MDEL multiplier99	1.000	3.114	2.275	2.275	4.903	4.903	3.114	2.275	3.559	3.559	3.114	3.114	3.114	3.114	4.009
MDEL/AMEL Multiplier	1.000	2.006	1.675	1.675	2.520	2.520	2.006	1.675	2.156	2.156	2.006	2.006	2.006	2.006	2.291
MDEL/AMEL Multiplier	#DIV/0!	1.555	1.869	1.869	1.302	1.302	1.555	1.869	1.467	1.467	1.555	1.555	1.555	1.555	1.401

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Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR		21	22		23		24	25	26	27		38	39		41
	1/2 BROMOFORM	Carbon Tetrachloride	Chlorobenzene	1/2 CHLOROBENZENE	Chlorodibromomethane	1/2 Chlorodibromomethane	Chloroethane	2-Chloroethylvinylether	Chloroform	Bromodichloromethane	1/2 Bromodichloromethane	Tetrachloroethylene	Toluene	1/2 Toluene	1,1,1-Trichloroethane
	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	µg/L	UG/L	UG/L	µg/L
8/22/1995															
9/25/1995															
9/26/1995	0.25	<0.3	<0.5	0.25	<0.5	0.25	<2.5	<1	7.2	1	1	<0.3	<0.3	0.15	<0.5
11/14/1995															
11/15/1995	0.25	<0.3			<0.5	0.25			2.4	<0.5	0.25	<0.3			<0.5
1/23/1996															
1/30/1996															
2/7/1996															
3/19/1996															
3/20/1996															
3/21/1996	0.25	<0.3	<0.5	0.25	<0.5	0.25	<2.5	<1	4.8	0.7	0.7	<0.3	0.6	0.6	<0.5
5/20/1996															
5/21/1996	0.25	<0.3			<0.5	0.25			2.2	<0.5	0.25	<0.3			<0.5
7/18/1996															
7/25/1996															
8/1/1996															
9/17/1996															
9/18/1996	0.25	<0.3	<0.5	0.25	0.5	0.5	<2.5	<1	6	1.3	1.3	3.9	<0.3	0.15	<0.5
11/18/1996															
11/19/1996	0.25	<0.3			0.6	0.6			4	1.4	1.4	1.7			<0.5
3/18/1997															
3/27/1997															<0.5
3/28/1997	0.25	<0.3	<0.5	0.25	<0.5	0.25	<2.5	<1	4.9	1.1	1.1	<0.3	<0.3	0.15	
4/24/1997															
5/27/1997															
5/28/1997	0.25	<0.3			<0.5	0.25			4.1	0.9	0.9	<0.3			<0.5
9/17/1997															
9/18/1997	0.5	<0.3	<1	0.5	<1	0.5	<1	<1	5	<1	0.5	<1	<1	0.5	<1
11/25/1997															
11/26/1997	0.25	<0.3			0.8	0.8			8.9	2.8	2.8	<0.3			<0.5
12/2/1997															
3/24/1998															
3/25/1998	0.5	<0.3	<1	0.5	<1	0.5	<1	<1	3	<1	0.5	1	<1	0.5	<1
5/20/1998															
5/21/1998	0.25	<0.3			0.7	0.7			4.8	0.9	0.9	1.2			<0.5
5/26/1998															
9/1/1998															
9/2/1998	0.5	<0.3	<1	0.5	<1	0.5	<1	<1	4	<1	0.5	<1	<1	0.5	<1
11/23/1998															
11/24/1998	0.5	<0.3			<1	0.5			4	<1	0.5	<1			<1
3/2/1999															
3/3/1999	0.25	<0.3	<0.5	0.25	0.7	0.7	<2.5	<1	9.3	1.7	1.7	<0.3	1.9	1.9	<0.5
5/18/1999															
5/19/1999	0.25	<0.3			0.7	0.7			6.7	1	1	<0.3			<0.5
5/20/1999															
9/14/1999															
9/15/1999	0.5	<0.3	<1	0.5	<1	0.5	<1	<1	4	<1	0.5	<1	<1	0.5	<1
11/22/1999															
11/23/1999	0.25	<0.3			0.7	0.7			6	0.8	0.8	<0.3			<0.5
11/29/1999															
3/14/2000															
3/15/2000															
3/16/2000	0.25	<0.3	<0.5	0.25	<0.5	0.25	<2.5	<1	5	0.7	0.7	<0.3	<0.3	0.15	<0.5
5/16/2000															

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Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR		21	22		23		24	25	26	27		38	39		41
	1/2 BROMOFORM	Carbon Tetrachloride	Chlorobenzene	1/2 CHLOROBENZENE	Chlorodibromomethane	1/2 Chlorodibromomethane	Chloroethane	2-Chloroethylvinylether	Chloroform	Bromodichloromethane	1/2 Bromodichloromethane	Tetrachloroethylene	Toluene	1/2 Toluene	1,1,1-Trichloroethane
	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	µg/L	UG/L	UG/L	µg/L
5/18/2000	0.25	<0.3			<0.5	0.25			5	0.5	0.5	<0.3			<0.5
5/17/2000															
9/19/2000															
9/20/2000	0.25	<0.5	<0.5	0.25	<0.5	0.25	<0.5	<0.5	2.3	<0.5	0.25	<0.5	<0.5	0.25	<0.5
11/28/2000															
11/29/2000	0.25	<0.5			<0.5	0.25			3	<0.5	0.25	<0.5			<0.5
3/13/2001															
3/14/2001	1	<1	<1	0.5	<1	0.5	<1	<2	4	<1	0.5	<1	<0.5	0.25	<1
5/15/2001															
5/22/2001															
5/23/2001															
5/24/2001	1	<1			<1	0.5			2	<1	0.5	<1			<1
5/29/2001															
7/19/2001	0.25	<0.5	<0.5	0.25	<0.5	0.25	<0.5	<0.5	1	<0.5	0.25	<0.5	<0.5	0.25	<0.5
8/2/2001	0.25	<0.5	<0.5	0.25	<0.5	0.25	<0.5	<0.5	2	<0.5	0.25	<0.5	<0.5	0.25	<0.5
9/4/2001	0.25	<0.5	<0.5	0.25	<0.5	0.25	<0.5	<0.5	4	<0.5	0.25	<0.5	<0.5	0.25	<0.5
9/12/2001	0.25	<0.5	0.5	0.5	<0.5	0.25	<0.5	<0.5	2	0.6	0.6	<0.5	<0.5	0.25	<0.5
10/9/2001	0.25	<0.5	0.5	0.5	<0.5	0.25	<0.5	<0.5	2	<0.5	0.25	<0.5	<0.5	0.25	<0.5
11/1/2001	0.25	<0.5	0.5	0.5	<0.5	0.25	<0.5	<0.5	2	0.5	0.5	<0.5	<0.5	0.25	<0.5
12/10/2001	1	<0.5	0.5	0.5	1	1	<0.5	<0.5	2	0.6	0.6	<0.5	<0.5	0.25	<0.5
1/7/2002															
1/8/2002	1.9	<0.5	0.5	0.5	1.1	1.1	<0.5	<0.5	1.8	0.5	0.5	<0.5	<0.5	0.25	<0.5
2/20/2002															
2/21/2002	1.7	<0.5	0.5	0.5	1	1	<0.5	<0.5	2.2	0.5	0.5	<0.5	<0.5	0.25	<0.5
3/11/2002	1.2	<0.5	0.5	0.5	0.7	0.7	<0.5	<0.5	2.5	0.6	0.6	<0.5	<0.5	0.25	<0.5
4/2/2002	1.2	<0.5	0.5	0.5	0.7	0.7	<0.5	<0.5	1.5	*0.3*	*0.3*	<0.5	*0.2*	0.2	<0.5
4/10/2002															
4/18/2002															
4/23/2002															
5/1/2002	0.6	0.5	0.5	0.5	*0.4*	*0.4*	<0.5	<0.5	2	*0.3*	*0.3*	<0.5	<0.5	0.25	<0.5
5/15/2002															
5/22/2002															
5/30/2002															
6/3/2002	0.6	0.5	0.5	0.5	*0.4*	*0.4*	<0.5	<0.5	2.4	*0.3*	*0.3*	<0.5	<0.5	0.25	<0.5
6/13/2002															
6/19/2002															
6/27/2002															
7/1/2002	0.8	0.5	0.5	0.5	0.6	0.6	<0.5	<0.5	3.8	0.6	0.6	<0.5	<0.5	0.25	<0.5
7/17/2002															
7/22/2002															
8/1/2002															
8/5/2002															
8/6/2002	*0.4*	0.5	0.5	0.5	*0.4*	*0.4*	<0.5	<0.5	2.5	*0.4*	*0.4*	<0.5	*0.2*	0.2	<0.5
9/4/2002															
9/5/2002	*0.3*	0.5	0.5	0.5	*0.3*	*0.3*	<0.5	<0.5	3.4	0.6	0.6	<0.5	*0.1*	0.1	<0.5
9/11/2002															
9/18/2002															
9/26/2002															
10/1/2002															
10/10/2002	*0.4*	0.5	0.5	0.5	*0.4*	*0.4*	<0.5	<0.5	3.1	0.6	0.6	<0.5	*0.1*	0.1	<0.5
11/4/2002															
11/5/2002	0.5	0.5	0.5	0.5	*0.4*	*0.4*	<0.5	<0.5	2.7	0.5	0.5	<0.5	<0.5	0.25	<0.5
12/4/2002															
12/5/2002	1.1	<0.5	<0.5	0.25	0.8	0.8	<0.5	<0.5	3.1	0.6	0.6	<0.5	*0.2*	0.2	<0.5

Note: *Detected but not Quantified (DNQ) values are in italics.*
Other priority pollutants not listed were not detected inthe effluent.

Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR		21	22		23		24	25	26	27		38	39		41
	1/2 BROMOFORM	Carbon Tetrachloride	Chlorobenzene	1/2 CHLOROBENZENE	Chlorodibromomethane	1/2 Chlorodibromomethane	Chloroethane	2-Chloroethylvinylether	Chloroform	Bromodichloromethane	1/2 Bromodichloromethane	Tetrachloroethylene	Toluene	1/2 Toluene	1,1,1-Trichloroethane
	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	µg/L	UG/L	UG/L	**µg/L**
1/8/2003	**0.9**	<0.5	<0.5	0.25	**0.7**	**0.7**	<0.5	<0.5	**2**	*0.4*	*0.4*	*0.3*	*0.2*	0.2	<0.5
3/17/2003															
3/24/2003															
4/1/2003															
4/8/2003															
4/9/2003	**1**	<0.5	<0.5	0.25	**1.5**	**1.5**	<0.5	<0.5	**3.6**	**2.7**	**2.7**	<0.5	*0.2*	0.2	<0.5
7/8/2003															
7/9/2003	*0.4*	<0.5	<0.5	0.25	**0.5**	**0.5**	<0.5	<0.5	**3**	**1**	**1**	**11**	**0.6**	0.6	<0.5
7/16/2003															
MEC		0.5	0.5		1.5		<0.5	<.05	9.3	2.8		11	1.9		0
MAXIMUM		0.5	0.5		1.5		<2.5	<2	9.3	2.8		11	1.9		0
MINIMUM		0.5	0.5		0.3		<0.5	<0.5	1	0.3		0.3	0.1		0
DETECTS		7	15		23		0	0	46	31		6	10		0
COUNT		46	34		46		34	34	46	46		46	34		46
% NONDETECT		84.78	55.88		50		100	100	0	32.61		86.957	70.588		100
ST DEVIATION	0.408	0		0.125		0.276075	#DIV/0!	#DIV/0!	1.853		0.55	4.0207		0.31	#DIV/0!
AVERAGE	0.527	0.5		0.397		0.502174	#DIV/0!	#DIV/0!	3.635		0.693	3.1833		0.32	#DIV/0!
CV	0.774	0		0.315		0.54976	#DIV/0!	#DIV/0!	0.51		0.793	1.263		0.96	#DIV/0!
Default CV	0.8	0.6	0.3	0.3	0.5	0.5	0.6	0.6	0.5	0.8	0.8	0.6	1	1	0.6
ECA multipliers Table 1															
CV^2 +1	1.640	1.360	1.090	1.090	1.250	1.250	1.360	1.360	1.250	1.640	1.640	1.360	2.000	2.000	1.360
Sigma	0.703	0.555	0.294	0.294	0.472	0.472	0.555	0.555	0.472	0.703	0.703	0.555	0.833	0.833	0.555
Sigma ^2	0.495	0.307	0.086	0.086	0.223	0.223	0.307	0.307	0.223	0.495	0.495	0.307	0.693	0.693	0.307
Sigma 4	0.385	0.294	0.149	0.149	0.246	0.246	0.294	0.294	0.246	0.385	0.385	0.294	0.472	0.472	0.294
Sigma 4 ^2	0.148	0.086	0.022	0.022	0.061	0.061	0.086	0.086	0.061	0.148	0.148	0.086	0.223	0.223	0.086
Z 99 %ile	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326
0.5*Sigma^2	0.247	0.154	0.043	0.043	0.112	0.112	0.154	0.154	0.112	0.247	0.247	0.154	0.347	0.347	0.154
Z99% *Sigma	1.636	1.290	0.683	0.683	1.099	1.099	1.290	1.290	1.099	1.636	1.636	1.290	1.937	1.937	1.290
ECA Acute 99 multiplier	0.249	0.321	0.527	0.527	0.373	0.373	0.321	0.321	0.373	0.249	0.249	0.321	0.204	0.204	0.321
0.5*Sigma 4 ^2	0.074	0.043	0.011	0.011	0.030	0.030	0.043	0.043	0.030	0.074	0.074	0.043	0.112	0.112	0.043
Z99%ile*Sigma 4	0.896	0.683	0.347	0.347	0.573	0.573	0.683	0.683	0.573	0.896	0.896	0.683	1.099	1.099	0.683
ECA Chronic99 multiplier	0.440	0.527	0.715	0.715	0.581	0.581	0.527	0.527	0.581	0.440	0.440	0.527	0.373	0.373	0.527
Z 95%ile	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645
Z95% *Sigma 4	0.634	0.483	0.245	0.245	0.405	0.405	0.483	0.483	0.405	0.634	0.634	0.483	0.777	0.777	0.483
0.5*sigma 4 ^2	0.074	0.043	0.011	0.011	0.030	0.030	0.043	0.043	0.030	0.074	0.074	0.043	0.112	0.112	0.043
AMEL multiplier95	1.750	1.552	1.264	1.264	1.455	1.455	1.552	1.552	1.455	1.750	1.750	1.552	1.945	1.945	1.552
Z99% *Sigma	1.636	1.290	0.683	0.683	1.099	1.099	1.290	1.290	1.099	1.636	1.636	1.290	1.937	1.937	1.290
0.5* sigma^2	0.247	0.154	0.043	0.043	0.112	0.112	0.154	0.154	0.112	0.247	0.247	0.154	0.347	0.347	0.154
MDEL multiplier99	4.009	3.114	1.896	1.896	2.684	2.684	3.114	3.114	2.684	4.009	4.009	3.114	4.903	4.903	3.114
MDEL/AMEL Multiplier	2.291	2.006	1.500	1.500	1.845	1.845	2.006	2.006	1.845	2.291	2.291	2.006	2.520	2.520	2.006
MDEL/AMEL Multiplier	1.401	1.555	2.197	2.197	1.679	1.679	1.555	1.555	1.679	1.401	1.401	1.555	1.302	1.302	1.555

Note: *Detected but not Quantified (DNQ) values are in italics.*
Other priority pollutants not listed were not detected inthe effluent.

Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR	68		77		105		115	126					
	Bis(2-ethylhexyl)phthalate [aka Diethylhexyl Phthalate]	1/2 Bis(2-ethylhexyl)phthalate [aka Diethylhexyl Phthalate]	P-Dichlorobenzene (aka 1,4-Dichlorobenzene)	1/2 P-Dichlorobenzene (aka 1,4-Dichlorobenzene)	Lindane (Gamma-BHC)	1/2 Lindane (Gamma-BHC)	ENDRIN	TOXAPHENE	METHOXYCLOR	BARIUM	1/2 BARIUM	2,4,5-TP(SILVEX)	2,4-D(ACID)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	UG/L	UG/L	UG/L	MG/L	MG/L	UG/L	UG/L
8/22/1995					0.01	0.01	<0.01						
9/25/1995	<10	5			0.02	0.02	<0.01	0.5					
9/26/1995			<0.5	0.25									
11/14/1995	8	8			0.02	0.02	<0.01						
11/15/1995			<0.5	0.25				0.5					
1/23/1996	<1	0.5											
1/30/1996	1	1											
2/7/1996	<1	0.5											
3/19/1996					0.01	0.01	<0.01	0.5					
3/20/1996	1	1											
3/21/1996			<0.5	0.25									
5/20/1996	16	16			0.01	0.01	<0.01						
5/21/1996			0.6	0.6									
7/18/1996	<1	0.5											
7/25/1996	<1	0.5						0.5					
8/1/1996	4	4											
9/17/1996	<1	0.5			0.01	0.01	<0.01	0.5					
9/18/1996			<0.5	0.25									
11/18/1996	<1	0.5			0.01	0.01	<0.01	0.5					
11/19/1996			0.7	0.7				0.5					
3/18/1997													
3/27/1997	1	1						0.5					
3/28/1997			0.6	0.6				0.5					
4/24/1997					0.02	0.02	<0.01						
5/27/1997	<1	0.5			0.02	0.02	<0.01	0.5					
5/28/1997			<0.5	0.25				0.5					
9/17/1997	<4	2			0.01	0.01	<0.01						
9/18/1997			1	1				0.5					
11/25/1997					0.01	0.01	<0.01	0.5					
11/26/1997			0.9	0.9									
12/2/1997	<1	0.5						0.5					
3/24/1998	<1	0.5			0.01	0.01	<0.01	0.5					
3/25/1998			2	2									
5/20/1998					0.01	0.01	<0.01						
5/21/1998			2	2				0.5					
5/26/1998	<1	0.5						0.5					
9/1/1998	<1	0.5			0.02	0.02	<0.01						
9/2/1998			1	1				0.5					
11/23/1998	<1	0.5			0.02	0.02	<0.01	0.5					
11/24/1998			<1	0.5									
3/2/1999	2	2			0.02	0.02	<0.01	0.5					
3/3/1999			1.9	1.9				0.5					
5/18/1999					0.01	0.01	<0.01	0.5					
5/19/1999			0.9	0.9				0.5	<0.01				
5/20/1999	<1	0.5						2					
9/14/1999	<1	0.5			0.01	0.01	<0.01	0.5					
9/15/1999			<1	0.5				0.5	<0.01				
11/22/1999					0.01	0.01	<0.01	0.5					
11/23/1999			0.9	0.9				0.5					
11/29/1999	<1	0.5											
3/14/2000					0.01	0.01	<0.01	0.5					
3/15/2000	<1	0.5											
3/16/2000			3.8	3.8				0.5	<0.01				
5/16/2000					0.03	0.03	<0.01	0.5					

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Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR	68		77		105		115	126					
	Bis(2-ethylhexyl)phhalate [aka Diethylhexyl Phthalate]	1/2 Bis(2-ethylhexyl)phhalate [aka Diethylhexyl Phthalate]	**P-Dichlorobenzene (aka 1,4-Dichlorobenzene)**	**1/2 P-Dichlorobenzene (aka 1,4-Dichlorobenzene)**	Lindane (Gamma-BHC)	1/2 Lindane (Gamma-BHC)	ENDRIN	TOXAPHENE	METHOXYCLOR	BARIUM	1/2 BARIUM	2,4,5-TP(SILVEX)	2,4-D(ACID)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	UG/L	UG/L	UG/L	MG/L	MG/L	UG/L	UG/L
5/18/2000			<0.5	0.25				0.5	<0.01				
5/17/2000	<1	0.5						0.5					
9/19/2000	<1	0.5			**0.01**	0.01	<0.01	0.5					
9/20/2000			**2.1**	**2.1**				0.5					
11/28/2000	<1	0.5			**0.01**	0.01	<0.01						
11/29/2000			**0.6**	**0.6**				0.5	<0.01				
3/13/2001					<0.1	0.05	<0.1						
3/14/2001	<1	0.5	**7**	**7**				0.5					
5/15/2001			**2**	**2**				0.5	<0.01				
5/22/2001			**3**	**3**									
5/23/2001	<1	0.5			**0.01**	0.01	<0.01	0.5					
5/24/2001			**2**	**2**									
5/29/2001			**3**	**3**				0.5	<0.01				
7/19/2001	<1	0.5	<0.5	0.25	<0.01	0.005	<0.01	0.5	<0.01	20	20		
8/2/2001	<1	0.5	**0.6**	**0.6**	**0.01**	0.01	<0.01	0.5	<0.01	20	20		
9/4/2001	<1	0.5	**2**	**2**	**0.01**	0.01	<0.01	0.5	<0.01	20	20	<0.5	<2
9/12/2001	<1	0.5	**1**	**1**	**0.01**	0.01	<0.01	0.5					
10/9/2001	*0.7*	*0.7*	**0.8**	**0.8**	<0.01	0.005	<0.01	0.5		20	20		
11/1/2001	*0.48*	*0.48*	**0.6**	**0.6**	**0.01**	0.01	<0.01	0.5		20	20	<0.52	<2.1
12/10/2001	<1	0.5	**0.8**	**0.8**	<0.01	0.005	<0.01	0.5		<10	5		
1/7/2002	<1	0.5			*0.003*	0.003	<0.01	0.5		20	20		
1/8/2002			**0.7**	**0.7**									
2/20/2002	<1	0.5			<0.01	0.005	<0.01			10	10		
2/21/2002			**1.2**	**1.2**									
3/11/2002	<1	0.5	**0.9**	**0.9**	*0.004*	0.004	<0.01			10	10	<0.5	<2
4/2/2002	*0.9*	*0.9*	**0.5**	**0.5**	<0.01	0.005	<0.01			20	20		
4/10/2002													
4/18/2002													
4/23/2002													
5/1/2002	<1	0.5	**1.3**	**1.3**	*0.003*	0.003	<0.01			20	20	<0.54	<2.2
5/15/2002													
5/22/2002													
5/30/2002													
6/3/2002	<1	0.5	**1.1**	**1.1**	<0.01	0.005	<0.01			20	20		
6/13/2002													
6/19/2002													
6/27/2002													
7/1/2002	<1	0.5	**1.1**	**1.1**	*0.004*	0.004	<0.01			10	10		
7/17/2002													
7/22/2002													
8/1/2002													
8/5/2002	*0.47*	*0.47*			*0.004*	0.004	<0.01			20	20		
8/6/2002			**1.3**	**1.3**									
9/4/2002	*0.58*	*0.58*			**0.01**	0.01	<0.01			20	20	<0.5	<2
9/5/2002			**1.2**	**1.2**									
9/11/2002													
9/18/2002													
9/26/2002													
10/1/2002													
10/10/2002	<5	2.5	0.7	0.7	<0.01	0.005	<0.01			20	20		
11/4/2002	<5	2.5			<0.01	0.005	<0.01			10	10		
11/5/2002			0.9	0.9									
12/4/2002	<5	2.5			0.01	0.01	<0.01			20	20		
12/5/2002			1	1									

Note: *Detected but not Quantified (DNQ) values are in italics.*
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Table D1

CSDLAC - Valencia WRP
Effluent Data

CTR	68		77		105		115	126					
	Bis(2-ethylhexyl)phthalate [aka Diethylhexyl Phthalate]	1/2 Bis(2-ethylhexyl)phhalate [aka Diethylhexyl Phthalate]	P-Dichlorobenzene (aka 1,4-Dichlorobenzene)	1/2 P-Dichlorobenzene (aka 1,4-Dichlorobenzene)	Lindane (Gamma-BHC)	1/2 Lindane (Gamma-BHC)	ENDRIN	TOXAPHENE	METHOXYCLOR	BARIUM	1/2 BARIUM	2,4,5-TP(SILVEX)	2,4-D(ACID)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	UG/L	UG/L	UG/L	MG/L	MG/L	UG/L	UG/L
1/8/2003	<5	2.5	**0.7**	**0.7**	<0.01	0.005	<0.01			20	20	<0.5	<2
3/17/2003													
3/24/2003													
4/1/2003													
4/8/2003	<5	2.5			<0.01	0.005	<0.01			10	10	<0.5	<2
4/9/2003			0.6	0.6			<0.01			20	20	<0.5	<2
7/8/2003	<4	2			*0.002*	0.002				10	10		
7/9/2003			*0.4*	*0.4*	<0.01	0.005							
7/16/2003							<0.01						
MEC	16		7		0.03		0	2	0	<10		0	0
MAXIMUM	16		7		0.03		0	2	0	20		0	0
MINIMUM	0.47		0.4		0.002		0	0.5	0	<10		0	0
DETECTS	12		40		36		0	48	0	21		0	0
COUNT	52		49		48		48	48	10	22		8	8
% NONDETECT	76.9231		18.3673		25		100	0	100	4.55		100	100
ST DEVIATION		2.47767		1.154		0.008276	#DIV/0!	0.22	#DIV/0!		5.21	#DIV/0!	#DIV/0!
AVERAGE		1.41596		1.187		0.010729	#DIV/0!	0.53	#DIV/0!		16.6	#DIV/0!	#DIV/0!
CV		1.74981		0.972		0.771397	#DIV/0!	0.41	#DIV/0!		0.31	#DIV/0!	#DIV/0!
Default CV		1.7		1	0.8	0.8	0.6	0.4	0.6	0.3	0.3	0.6	0.6
ECA multipliers Table 1													
CV^2 +1	1.000	3.890	1.000	2.000	1.640	1.640	1.360	1.160	1.360	1.090	1.090	1.360	1.360
Sigma	0.000	1.166	0.000	0.833	0.703	0.703	0.555	0.385	0.555	0.294	0.294	0.555	0.555
Sigma ^2	0.000	1.358	0.000	0.693	0.495	0.495	0.307	0.148	0.307	0.086	0.086	0.307	0.307
Sigma 4	0.000	0.737	0.000	0.472	0.385	0.385	0.294	0.198	0.294	0.149	0.149	0.294	0.294
Sigma 4 ^2	0.000	0.544	0.000	0.223	0.148	0.148	0.086	0.039	0.086	0.022	0.022	0.086	0.086
Z 99 %ile	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326	2.326
0.5*Sigma^2	0.000	0.679	0.000	0.347	0.247	0.247	0.154	0.074	0.154	0.043	0.043	0.154	0.154
Z99% *Sigma	0.000	2.711	0.000	1.937	1.636	1.636	1.290	0.896	1.290	0.683	0.683	1.290	1.290
ECA Acute 99 multiplier	1.000	0.131	1.000	0.204	0.249	0.249	0.321	0.440	0.321	0.527	0.527	0.321	0.321
0.5*Sigma 4 ^2	0.000	0.272	0.000	0.112	0.074	0.074	0.043	0.020	0.043	0.011	0.011	0.043	0.043
Z99%ile*Sigma 4	0.000	1.715	0.000	1.099	0.896	0.896	0.683	0.461	0.683	0.347	0.347	0.683	0.683
ECA Chronic99 multiplier	1.000	0.236	1.000	0.373	0.440	0.440	0.527	0.643	0.527	0.715	0.715	0.527	0.527
Z 95%ile	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645
Z95% *Sigma 4	0.000	1.213	0.000	0.777	0.634	0.634	0.483	0.326	0.483	0.245	0.245	0.483	0.483
0.5*sigma 4 ^2	0.000	0.272	0.000	0.112	0.074	0.074	0.043	0.020	0.043	0.011	0.011	0.043	0.043
AMEL multiplier95	1.000	2.563	1.000	1.945	1.750	1.750	1.552	1.358	1.552	1.264	1.264	1.552	1.552
Z99% *Sigma	0.000	2.711	0.000	1.937	1.636	1.636	1.290	0.896	1.290	0.683	0.683	1.290	1.290
0.5* sigma^2	0.000	0.679	0.000	0.347	0.247	0.247	0.154	0.074	0.154	0.043	0.043	0.154	0.154
MDEL multiplier99	1.000	7.628	1.000	4.903	4.009	4.009	3.114	2.275	3.114	1.896	1.896	3.114	3.114
MDEL/AMEL Multiplier	1.000	2.976	1.000	2.520	2.291	2.291	2.006	1.675	2.006	1.500	1.500	2.006	2.006
MDEL/AMEL Multiplier	#DIV/0!	1.098	#DIV/0!	1.302	1.401	1.401	1.555	1.869	1.555	2.197	2.197	1.555	1.555

Note: *Detected but not Quantified (DNQ) values are in italics.*
Other priority pollutants not listed were not detected inthe effluent.

Table D2

CSDLAC - Valencia WRP

Receiving Water Data
Station RC - Santa Clara River
(CA0054216, CI-4993)

CTR	1	2	3	4	5a	5b	5b	6	7	8	9	10	11	12	13	14	16
	Antimony	Arsenic	Beryllium	Cadmium	Chromium III	Chromium VI	Total Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	2,3,7,8-TCDD
Jul-01	1.7	1.3	<2.5	<2	<10	<10		8	10	<0.1	<20	3	<0.19	<1	10	<10	
Aug-01	2.4	1	<2.5	<2	2.63	<10		9	2.03	0.04	14.4	2.5	<0.19	<1	10	<10	4.293
Sep-01	<0.5	1.5	<0.5	0.25	<10	<10		4.1	0.99	<0.1	5.85	3.3	<0.077	<1	20	6	
Oct-01	<0.5	1.4	<0.5	0.16	<10	<10		3.82	0.78	<0.1	11.1	3.8	0.029	<1	20	<10	
Nov-01	0.4	1	<0.5	0.2	<10	<10		4.2	0.19	<0.1	12.3	3.4	0.03	<1	10	<10	
Dec-01	0.7	2.3	0.24	0.4	6.8	<10		9	4	<0.1	18.9	2	0.055	<1	30	<10	
Jan-02	2.3	1	0.1	0.38	4.1	<10		6.7	3	<0.1	11	1.9	0.035	<1	40	<10	
Feb-02	<0.5	1.7	0.1	0.3	<10	<10		7.9	3	0.04	10.6	1.7	0.063	<1	20	<10	0
Mar-02	<0.5	1.6	<0.5	0.3	<10	<10		5.2	2	<0.04	8.3	2.4	<0.053	<1	20	<10	
Apr-02	0.9	<1	<0.5	0.36	<10	<10		4.2	1.3	<0.04	6.2	2.9	0.029	<1	30	<10	
May-02	<0.5	0.7	<0.5	0.21	<10	<10		7.1	1.6	<0.04	10.2	2.3	<0.14	<1	30	<10	
Jun-02	<0.5	1.3	0.19	0.27	<10	<10		2.3	1.8	<0.04	5.4	1.8	<0.07	<1	20	<10	
Jul-02	<0.5	0.4	<0.5	0.21	<10	<10		1.6	1.6	<0.04	<20	2.4	<0.047	<1	20	<10	
Aug-02	<0.5	1.1	<0.5	0.33	<10	<10		4.7	1.45	<0.04	20	1.5	<0.043	<1	10	<10	0
Sep-02	<0.5	1.6	<0.5	0.13	<10	<10		1.9	1.12	<0.04	7.1	3	0.016	<1	20	<10	
MEC																	
MAXIMUM	2.4	2.3	0.24	0.4	6.8	0	0	9	10	0.04	20	3.8	0.063	0	40	6	4.293
MINIMUM	0.4	0.4	0.1	0.13	2.63	0	0	1.6	0.19	0.04	5.4	1.5	0.016	0	10	6	0
DETECTS	6	14	4	13	3	0	0	15	15	2	13	15	7	0	15	1	3
COUNT	15	15	15	15	15	15	0	15	15	15	15	15	15	15	15	15	3
%NONDETECT	60	6.6667	73.333	13.33	80	100	#DIV/0!	0	0	86.667	13.333	0	53.333	100	0	93.333	0
AVE																	

Table D2

CSDLAC - Valencia WRP

Receiving Water Data
Station RC - Santa Clara River
(CA0054216, CI-4993)

CTR	17	18	19	20	21	22	23	26	27	39	62	64	68
	Acrolein	Acrylonitrile	Benzene	Bromoform	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane (a.k.a Dibromochloromethane)	Chloroform	Bromodichloromethane	Toluene	Benzo(b)Fluoranthene	BENZO(K)FLUORANTHENE	Bis(2-ethylhexyl)phthalate a.k.a. Diethylhexyl Phthalate
Jul-01			<0.5	<0.5			<0.5	*0.1*	<0.5	<0.5	<0.0031	<0.0031	*0.7*
Aug-01			<0.5	<0.5			<0.5	*0.2*	<0.5	<0.5	<0.0031	<0.0031	*0.6*
Sep-01			<0.5	<0.5			<0.5	**0.5**	<0.5	<0.5	*0.0048*	<0.0031	<1
Oct-01			<0.5	<0.5			<0.5	*0.07*	<0.5	<0.5	<0.0031	*0.0024*	<1
Nov-01			<0.5	<0.5			*0.2*	*0.1*	*0.08*	<0.5	<0.0031	*0.0037*	<1
Dec-01			<0.5	*0.3*			*0.3*	**0.9**	*0.2*	<0.5	<0.0031	*0.0074*	<1
Jan-02			<0.5	<0.5			<0.5	*0.2*	<0.5	<0.5	<0.0031	<0.0031	*0.45*
Feb-02			<0.5	<0.5			<0.5	*0.1*	<0.5	<0.5	<0.0031	<0.0031	<1
Mar-02			<0.5	<0.5			<0.5	*0.1*	<0.5	<0.5	<0.0031	<0.0031	*0.55*
Apr-02			<0.5	<0.5			*0.1*	**1.1**	*0.3*	<0.5	<0.0031	<0.0031	*0.75*
May-02			<0.5	<0.5			<0.5	*0.1*	<0.5	<0.5	<0.0031	<0.0031	*0.53*
Jun-02			<0.5	<0.5			<0.5	*0.2*	<0.5	<0.5	<0.0031	<0.0031	*0.46*
Jul-02			*0.08*	*0.3*			*0.4*	**0.6**	*0.3*	*0.1*	*0.0025*	*0.0022*	*0.65*
Aug-02			<0.5	<0.5			<0.5	<0.5	<0.5	<0.5	<0.0031	<0.0031	<1
Sep-02			<0.5	*0.4*			**0.6**	**0.6**	*0.4*	<0.5	<0.0031	<0.0031	<1
MEC													
MAXIMUM	0	0	0.08	0.4	0	0	0.6	1.1	0.4	0.1	0.0048	0.0074	0.75
MINIMUM	0	0	0.08	0.3	0	0	0.1	0.07	0.08	0.1	0.0025	0.0022	0.45
DETECTS	0	0	1	3	0	0	5	14	5	1	2	4	8
COUNT	0	0	15	15	0	0	15	15	15	15	15	15	15
%NONDETECT	#DIV/0!	#DIV/0!	93.333	80	#DIV/0!	#DIV/0!	66.66667	6.6666667	66.666667	93.333	86.66666667	73.3333333	46.66667
AVE													

Table D2

CSDLAC - Valencia WRP

Receiving Water Data
Station RC - Santa Clara River
(CA0054216, CI-4993)

CTR	73	74	92	105	126							
	CHRYSENE	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Lindane (gamma-BHC)	Toxaphene	pH	Hardness	Hardness capped	TSS	Salinity	flow	flow
							mg/L	mg/L	mg/L	ppm	cfs	MGD
Jul-01		**0.01**	<0.006	<0.01		7.94	378	378	*8*	0.635	7.2	4.65
Aug-01		**0.0078**	<0.006	*0.004*		8.25	397	397	3	0.674	5.6	3.62
Sep-01		**0.012**	**0.007**	<0.01		7.97	467	400	3	0.688	3.4	2.20
Oct-01		<0.006	<0.006	*0.002*		8.06	494	400	1	0.702	not available	
Nov-01		<0.006	<0.006	<0.01		8	478	400	*0.6*	0.675	not available	
Dec-01		<0.006	<0.006	*0.002*		7.91	386	386	46	0.636	not available	
Jan-02		<0.006	<0.006	*0.002*		7.94	350	350	113	0.623	not available	
Feb-02		<0.006	<0.006	<0.01		7.88	370	370	20	0.629	14.86	9.60
Mar-02		<0.006	<0.006	<0.01		7.81	365	365	13	0.638	12.12	7.83
Apr-02		<0.006	<0.006	<0.01		7.95	431	400	29	0.657	10.61	6.86
May-02		**0.015**	<0.006	*0.003*		7.89	358	359	6	0.638	6.79	4.39
Jun-02		<0.006	<0.006	<0.01		7.91	380	380	6	0.654	6.39	4.13
Jul-02		<0.006	<0.006	*0.003*		7.9	437	400	58	0.661	5.88	3.80
Aug-02		<0.006	*0.004*	*0.002*		7.83	407	400	2	0.64	4	2.59
Sep-02		<0.006	<0.006	<0.01		7.89	490	400	1	0.702	2.07	1.34
MEC		0.015										
MAXIMUM	0	0.015	0.007	0.004	0	8.25	494	400	113	0.702	14.86	9.60
MINIMUM	0	0.0078	0.004	0.002	0	7.81	350	350	0.6	0.623	2.07	0.00
DETECTS	0	4	2	7	0	15	15	15	15	15	11.00	14.00
COUNT	0	15	15	15	0	15	15	15	15	15	15.00	14.00
%NONDETECT	#DIV/0!	73.3333333	86.66667	53.333	#DIV/0!	0	0	0	0	0	26.67	0.00
AVE						7.94	412.53	385.67	20.64	0.66	7.17	3.64

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

					CTR CRITERIA				Basin Plan	REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health									Organisns Only		
CTR#	DATE	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O	Title 22 GWR	Lowest C	Tier 1: MEC >= Lowest C	B (RD-1)	Tier 2: B>C	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
1	Antimony	µg/L	0.5	3.7	NONE	NONE	14	4300	6	6	NO	2.4	NO	Type of facility, pollutant present in effluent & receiving water	Yes			
2	Arsenic	µg/L	0.7	3.6	340	150	NONE	NONE	50	50	NO	2.3	NO	Type of facility, pollutant present in effluent & receiving water	Yes			
3	Beryllium	µg/L	0.6	*0.4*	NONE	NONE	Narrative	Narrative	4	4	NO	<0.5	NO	NO				
4	Cadmium*	µg/L	0.8	<3	21	7.1	Narrative	Narrative	5	5	NO	0.4	NO	NO				
5a	Chromium III*	µg/L	0.6		5270	630	Narrative	Narrative		630	NO	*6.8*	NO	NO				
5b	Chromium VI	µg/L	0.6	<0.02	16.293279	11.4345114	Narrative	Narrative	50	11	NO	<10	NO	NO				
6	Copper*	µg/L	0.3	10	50	30	1300	NONE		30	NO	9	NO	NO				
7	Lead*	µg/L		3	460	18	Narrative	Narrative		18	NO	*10*	NO	NO				
8	Mercury	µg/L	0.6	0.5	reserved	reserved	0.05	0.051	2	0.051	YES	*0.04*				0.051	2.01	0.10251
9	Nickel*	µg/L	0.6	*8.8*	1480	160	610	4600	100	100	NO	20	NO	Type of facility, pollutant present in effluent & receiving water	YES			
10	Selenium	µg/L	0.4	1.4	Reserved	5	Narrative	Narrative	50	5	NO	3.8	NO	Type of facility, pollutant present in effluent & receiving water	YES			

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

			AQUATIC LIFE CALCULATIONS					AQUATIC LIFE CALCULATIONS						
			Freshwater					Freshwater				PROPOSED LIMITS		
CTR#	DATE	Units	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL	Recommendation
1	Antimony	µg/L										6	--	Need limit Tier 3 - Type of facility & nature of discharge. Discharge could contribute to an exceedance, because pollutant is present in the effluent & receiving water. Retain existing limit from Order 95-081, for protection of GWR (groundwater recharge) & Antibacksliding.
2	Arsenic	µg/L										50	--	Need limit Tier 3 - Type of facility & nature of discharge. Discharge could contribute to an exceedance, because pollutant is present in the effluent & receiving water. Retain existing limit from Order 95-081, for protection of GWR (groundwater recharge) & Antibacksliding.
3	Beryllium	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent or receiving water. Require interim monitoring.
4	Cadmium*	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent or receiving water. Require interim monitoring.
5a	Chromium III*	µg/L												Interim Monitoring - No CTR-based Limit
5b	Chromium VI	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent or receiving water. Require interim monitoring.
6	Copper*	µg/L												Interim Monitoring - No CTR-based Limit
7	Lead*	µg/L												Deleted the Gold Book-based limit from Order No. 95-081 because the 50 µg/L WQO became invalid with USEPA's adoption of the National Recommended Water Quality Criteria: 2002 (EPA-822-R-02-047, November 2002). Require interim monitoring.
8	Mercury	µg/L										0.051	0.1	**Retain existing limit from Order 96-042, for protection of GWR & Antibacksliding.**
9	Nickel*	µg/L										100	--	Need limit Tier 3 - Type of facility & nature of discharge. Discharge could contribute to an exceedance, because pollutant is present in the effluent & receiving water. Retain existing limit from Order 95-081, for protection of GWR (groundwater recharge) & Antibacksliding.
10	Selenium	µg/L										50	--	Need limit Tier 3 - Type of facility & nature of discharge. Discharge could contribute to an exceedance, because pollutant is present in the effluent & receiving water. Retain existing limit from Order 95-081, for protection of GWR (groundwater recharge) & Antibacksliding.

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

					CTR CRITERIA					REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health		Basin Plan							Organisms Only		
CTR#	DATE	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O	Title 22 GWR	Lowest C	Tier 1: MEC >= Lowest C	B (RD-1)	Tier 2: B>C	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
11	Silver*	µg/L	1	0.195	42	none	NONE	NONE		42	NO	0.063	NO	NO				
12	Thallium	µg/L	0.6	<0.5	NONE	NONE	1.7	6.3	2	2	NO	<1	NO	NO				
13	Zinc*	µg/L	0.4	80	380	380	none	NONE		380	NO	40	NO	Type of facility, pollutant present in effluent & receiving water	YES			
14	Cyanide	µg/L	0.7	32	22	5.2	700	220,000	200	5.2	YES	6	YES					
15	Asbestos	Fibers/L			NONE	NONE	7,000,000	NONE	7x10^6	7x10^6								
16	2,3,7,8-TCDD (Dioxin)	µg/L		<1	NONE	NONE	1.3E-08	1.4E-08	3x10^-5	1.4E-08	NO		4.293	NO				
17	Acrolein	µg/L		<2	NONE	NONE	320	780		780	NO							
18	Acrylonitrile	µg/L	0.6	1.7	NONE	NONE	0.059	0.66		0.66	YES					0.66	2.01	1.3266
19	Benzene	µg/L	0.6	<0.3	NONE	NONE	1.2	71	1	1	NO		*0.08*	NO				
20	Bromoform	µg/L	0.8	1.9	NONE	NONE	4.3	360		360	NO		*0.4*	NO				
21	Carbon Tetrahloride	µg/L	0.6	<0.3	NONE	NONE	0.25	4.4	600	4.4	NO							
22	Chlorobenzene	µg/L	0.6	<0.5	NONE	NONE	680	21,000		21,000	NO							
23	Dibromochloromethane	µg/L	0.5	1.5	NONE	NONE	0.401	34		34	NO		0.6	NO				
24	Chloroethane	µg/L	0.6	<0.5	NONE	NONE	NONE	NONE		NONE	No criteria							
25	2-chloroethyl vinyl ether	µg/L	0.6	<0.5	NONE	NONE	NONE	NONE		NONE	No criteria							
26	Chloroform	µg/L	0.5	9.3	NONE	NONE	Reserved	Reserved		Reserved	No criteria		1.1	NO				
27	Dichlorobromomethane	µg/L	0.8	2.8	NONE	NONE	0.56	46		46	NO		*0.4*	NO				
28	1,1-Dichloroethane	µg/L	0.6	<0.3	NONE	NONE	NONE	NONE	5	5	NO							
29	1,2-dichloroethane		0.6	<0.3	NONE	NONE	0.38	99	0.5	0.5	NO							
30	1,1-Dichloroethylene	µg/L	0.6	<0.3	NONE	NONE	0.057	3.2	6	3.2	NO							
31	1,2-dichloropropane	µg/L	0.6	<0.5	NONE	NONE	0.52	39	5	5	NO							
32	1,3-dichloropropylene	µg/L	0.6	<0.5	NONE	NONE	10	1,700	0.5	0.5	NO							
33	Ethylbenzene	µg/L	0.6	<0.3	NONE	NONE	3100	29,000	0.7	0.7	NO							

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

			AQUATIC LIFE CALCULATIONS					AQUATIC LIFE CALCULATIONS				PROPOSED LIMITS		
			Freshwater					Freshwater						
CTR#	DATE	Units	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL	Recommendation
11	Silver*	µg/L												Deleted the Gold Book-based limit from Order No. 95-081 because the WQO became invalid with USEPA's adoption of the National Recommended Water Quality Criteria: 2002 (EPA-822-R-02-047, November 2002). Require interim monitoring.
12	Thallium	µg/L												Interim Monitoring - No Limit
13	Zinc*	µg/L										5000	--	Need limit Tier 3 - Type of facility & nature of discharge. Discharge could contribute to an exceedance, because pollutant is present in the effluent & receiving water. Retain existing limit from Order 95-081, for protection of GWR (groundwater recharge) & Antibacksliding.
14	Cyanide	µg/L	0.281	6.182	0.481	2.5012	2.5012	1.65	4.12698	3.56	8.904272	4.1	8.9	Need Limit (Tier 1) Reasonable potential to exceed CTR Freshwater Aquatic life criteria.
15	Asbestos	Fibers/L												Interim Monitoring - No Limit
16	2,3,7,8-TCDD (Dioxin)	µg/L												Interim Quarterly Monitoring - Not enough data was available.
17	Acrolein	µg/L												Interim Monitoring - No Limit
18	Acrylonitrile	µg/L										0.66	1.3	Tier 1 - Reasonable Potential to exceed CTR Human health organisms only criteria.
19	Benzene	µg/L												Interim Monitoring - No Limit
20	Bromoform	µg/L												Interim Monitoring - No Limit
21	Carbon Tetrahloride	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent or receiving water. Require interim monitoring.
22	Chlorobenzene	µg/L												Interim Monitoring - No Limit
23	Dibromochloromethane	µg/L												Interim Monitoring - No Limit
24	Chloroethane	µg/L												No Limit - No Criteria Available
25	2-chloroethyl vinyl ether	µg/L												No Limit - No Criteria Available
26	Chloroform	µg/L												No Limit - No Criteria Available
27	Dichlorobromomethane	µg/L												Interim Monitoring - No Limit
28	1,1-Dichloroethane	µg/L												Interim Monitoring - No Limit
29	1,2-dichloroethane													Interim Monitoring - No Limit
30	1,1-Dichloroethylene	µg/L												Interim Monitoring - No Limit
31	1,2-dichlooropropane	µg/L												Interim Monitoring - No Limit
32	1,3-dichloropropylene	µg/L												Interim Monitoring - No Limit
33	Ethylbenzene	µg/L												Interim Monitoring - No Limit

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

					CTR CRITERIA					REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health		Basin Plan							Organisns Only		
CTR#	DATE	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O	Title 22 GWR	Lowest C	Tier 1: MEC >= Lowest C	B (RD-1)	Tier 2: B>C	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
34	Methyl bromide	µg/L	0.6	<0.5	NONE	NONE	48	4,000		4,000	NO							
35	Methyl chloride	µg/L	0.6	<0.5	NONE	NONE	Narrative	Narrative		Narrative	No criteria							
36	Methylene chloride	µg/L	0.8	1.1	NONE	NONE	4.7	1,600		1,600	NO							
37	1,1,2,2-tetrachlroethne	µg/L	0.6	<0.5	NONE	NONE	0.17	11	1	1	NO							
38	Tetrachloroethylene	µg/L	0.6	11	NONE	NONE	0.8	8.85	5	5	YES							
39	Toluene	µg/L	1	1.9	NONE	NONE	6800	200,000	150	150	NO	0.1	NO					
40	Trans 1,2-Dichloroethylene	µg/L	0.6	<0.5	NONE	NONE	700	140,000	10	10	NO							
41	1,1,1-Trichloroethane	µg/L	0.6	<0.3	NONE	NONE	Narrative	Narrative	200	200	NO							
42	1,1,2-trichloroethane	µg/L	0.6	<0.3	NONE	NONE	0.6	42	5	5	NO							
43	Trichloroethylene	µg/L	0.6	<0.3	NONE	NONE	2.7	81	5	5	NO							
44	Vinyl chloride	µg/L	0.6	<0.3	NONE	NONE	2	525	0.5	0.5	NO							
45	2-chlorophenol	µg/L	0.6	<1	NONE	NONE	120	400		400	NO							
46	2,4-dihlorophenol	µg/L	0.6	<1	NONE	NONE	93	790		790	NO							
47	2,4-dimethylphenol	µg/L	0.6	<1	NONE	NONE	540	2,300		2,300	NO							
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	µg/L	0.6	<1	NONE	NONE	13.4	765		765	NO							
49	2,4-dinitrophenol	µg/L	0.6	<5	NONE	NONE	70	14,000		14,000	NO							
50	2-nitrophenol	µg/L	0.6	<1	NONE	NONE	NONE	NONE		None	No criteria							
51	4-nitrophenol	µg/L	0.6	<1	NONE	NONE	NONE	NONE		None	No criteria							
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	µg/L	0.6	<1	NONE	NONE	NONE	NONE		None	No criteria							
53	Pentachlorophenol	µg/L	0.6	<1	pH dependen	pH dependen	0.28	8.2	1	1	NO							
54	Phenol	µg/L	0.6	3.4	NONE	NONE	21,000	4,600,000		4.6x10^6	NO							
55	2,4,6-trihlorophenol	µg/L	0.6	<1	NONE	NONE	2.1	6.5		6.5	NO							
56	Acenaphthene	µg/L	0.6	<1	NONE	NONE	1200	2,700		2,700	NO							
57	Acenaphthylene	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	NO							
58	Anthracene	µg/L	0.6	<1	NONE	NONE	9600	110,000		110,000	NO							
59	Benzidine	µg/L	0.6	<5	NONE	NONE	0.00012	0.00054		0.00054	NO							
60	Benzo(a)Anthracene	µg/L	0.6	<1	NONE	NONE	0.0044	0.049		0.049	NO							
61	Benzo(a)Pyrene	µg/L	0.6	0.0059	NONE	NONE	0.0044	0.049		0.049	NO							
62	Benzo(b)Fluoranthene	µg/L	0.6	0.0104	NONE	NONE	0.0044	0.049		0.049	NO	0.0048	NO					
63	Benzo(ghi)Perylene	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	No criteria							
64	Benzo(k)Fluoranthene	µg/L	0.6	0.011	NONE	NONE	0.0044	0.049		0.049	NO	0.0074	NO					
65	Bis(2-Chloroethoxy) methane	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	No criteria							
66	Bis(2-Chloroethyl)Ether	µg/L	0.6	<1	NONE	NONE	0.031	1.4		1.4	NO							
67	Bis(2-Chloroisopropyl) Ether	µg/L	0.6	<1	NONE	NONE	1400	170,000		170,000	NO							
68	Bis(2-Ethylhexyl) Phthalate	µg/L	1.7	16	NONE	NONE	1.8	5.9	4	4	YES	0.75						
69	4-Bromophenyl Phenyl Ether	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	No criteria							
70	Butylbenzyl Phthalate	µg/L	0.6	<1	NONE	NONE	3000	5,200		5,200	NO							

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, C# 4993)

CTR#	DATE	Units	AQUATIC LIFE CALCULATIONS Freshwater					AQUATIC LIFE CALCULATIONS Freshwater				PROPOSED LIMITS		Recommendation
			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL	
34	Methyl bromide	µg/L												Interim Monitoring - No Limit
35	Methyl chloride	µg/L												No Limit - No Criteria Available
36	Methylene chloride	µg/L												Interim Monitoring - No Limit
37	1,1,2,2-tetrachlroethne	µg/L												Interim Monitoring - No Limit
38	**Tetrachloroethylene**	µg/L										5	--	Tier 1 - RP to exceed Basin Plan WQO. Retain existing limit from Order 95-081, for protection of GWR & Antibacksliding.
39	Toluene	µg/L												Interim Monitoring - No Limit
40	Trans 1,2-Dichloroethylene	µg/L												Interim Monitoring - No Limit
41	1,1,1-Trichloroethane	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent or receiving water. Require interim monitoring.
42	1,1,2-trichloroethane	µg/L												Interim Monitoring - No Limit
43	Trichloroethylene	µg/L												Interim Monitoring - No Limit
44	Vinyl chloride	µg/L												Interim Monitoring - No Limit
45	2-chlorophenol	µg/L												Interim Monitoring - No Limit
46	2,4-dihlorophenol	µg/L												Interim Monitoring - No Limit
47	2,4-dimethylphenol	µg/L												Interim Monitoring - No Limit
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	µg/L												Interim Monitoring - No Limit
49	2,4-dinitrophenol	µg/L												Interim Monitoring - No Limit
50	2-nitrophenol	µg/L												No Criteria Available
51	4-nitrophenol	µg/L												No Criteria Available
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	µg/L												No Criteria Available
53	Pentachlorophenol	µg/L												Interim Monitoring - No Limit
54	Phenol	µg/L												Interim Monitoring - No Limit
55	2,4,6-trihlorophenol	µg/L												Interim Monitoring - No Limit
56	Acenaphthene	µg/L												Interim Monitoring - No Limit
57	Acenaphthylene	µg/L												No Criteria Available
58	Anthracene	µg/L												Interim Monitoring - No Limit
59	Benzidine	µg/L												Interim Monitoring - No Limit
60	Benzo(a)Anthracene	µg/L												Interim Monitoring - No Limit
61	Benzo(a)Pyrene	µg/L												Interim Monitoring - No Limit
62	Benzo(b)Fluoranthene	µg/L												Interim Monitoring - No Limit
63	Benzo(ghi)Perylene	µg/L												No Criteria Available
64	Benzo(k)Fluoranthene	µg/L												Interim Monitoring - No Limit
65	Bis(2-Chloroethoxy) methane	µg/L												No Criteria Available
66	Bis(2-Chloroethyl)Ether	µg/L												Interim Monitoring - No Limit
67	Bis(2-Chloroisopropyl) Ether	µg/L												Interim Monitoring - No Limit
68	**Bis(2-Ethylhexyl) Phthalate**	µg/L										4	--	Tier 1 - RP to exceed Basin Plan WQO. Retain existing limit from Order 95-081, for protection of GWR & Antibacksliding.
69	4-Bromophenyl Phenyl Ether	µg/L												No Criteria Available
70	Butylbenzyl Phthalate	µg/L												Interim Monitoring - No Limit

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

					CTR CRITERIA					REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health		Basin Plan							Organisms Only		
CTR#	DATE	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O	Title 22 GWR	Lowest C	Tier 1: MEC >= Lowest C	B (RD-1)	Tier 2: B>C	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
71	2-Chloronaphthalene	µg/L	0.6	<1	NONE	NONE	1700	4,300		4,300	NO							
72	4-Chlorophenyl Phenyl Ether	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	No criteria							
73	Chrysene	µg/L	0.6	0.0056	NONE	NONE	0.0044	0.049		0.049	NO							
74	Dibenzo(a,h)Anthracene	µg/L	0.6	0.014	NONE	NONE	0.0044	0.049		0.049	NO		0.015	NO				
75	1,2-Dichlorobenzene	µg/L	0.6	<1	NONE	NONE	2700	17,000	600	600	NO							
76	1,3-Dichlorobenzene	µg/L	0.6	<1	NONE	NONE	400	2,600		2,600	NO							
77	1,4-Dichlorobenzene	µg/L	1	7	NONE	NONE	400	2,600	5	5	YES							
78	3,3'-Dichlorobenzidine	µg/L	0.6	<1	NONE	NONE	0.04	0.077		0.077	NO							
79	Diethyl Phthalate	µg/L	0.6	1	NONE	NONE	23000	120,000		120,000	NO							
80	Dimethyl Phthalate	µg/L	0.6	<1	NONE	NONE	313000	2,900,000		2.9x10^6	NO							
81	Di-n-Butyl Phthalate	µg/L	0.6	<1	NONE	NONE	2700	12,000		12,000	NO							
82	2,4-Dinitrotoluene	µg/L	0.6	<1	NONE	NONE	0.11	9.1		9.1	NO							
83	2,6-Dinitrotoluene	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	No criteria							
84	Di-n-Octyl Phthalate	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	No criteria							
85	1,2-Diphenylhydrazine	µg/L	0.6	<1	NONE	NONE	0.04	0.54		0.54	NO							
86	Fluoranthene	µg/L	0.6	<1	NONE	NONE	300	370		370	NO							
87	Fluorene	µg/L	0.6	<1	NONE	NONE	1300	14,000		14,000	NO							
88	Hexachlorobenzene	µg/L	0.6	<1	NONE	NONE	0.00075	0.00077		0.00077	NO							
89	Hexachlorobutadiene	µg/L	0.6	<1	NONE	NONE	0.44	50		50	NO							
90	Hexachlorocyclopentadiene	µg/L	0.6	<1	NONE	NONE	240	17,000		17,000	NO							
91	Hexachloroethane	µg/L	0.6	<1	NONE	NONE	1.9	8.9		8.9	NO							
92	Indeno(1,2,3-cd)Pyrene	µg/L	0.6	0.016	NONE	NONE	0.0044	0.049		0.049	NO	0.007	NO					
93	Isophorone	µg/L	0.6	<1	NONE	NONE	8.4	600		600	NO							
94	Napthalene	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	No criteria							
95	Nitrobenzene	µg/L	0.6	<1	NONE	NONE	17	1,900		1,900	NO							
96	N-Nitrosodimethylamine	µg/L	0.6	2.1	NONE	NONE	0.00069	8.1		8.1	NO							
97	N-Nitrosodi-n-Propylamine	µg/L	0.6	<1	NONE	NONE	0.005	1.4		1.4	NO							
98	N-Nitrosodiphenylamine	µg/L	0.6	<1	NONE	NONE	5	16		16	NO							
99	Phenanthrene	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	NO							
100	Pyrene	µg/L	0.6	<1	NONE	NONE	960	11,000		11,000	NO							
101	1,2,4-Trichlorobenzene	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	No criteria							
102	Aldrin	µg/L	0.6	<0.01	3	NONE	0.00013	0.00014		0.00014	NO							
103	alpha-BHC	µg/L	0.6	<0.01	NONE	NONE	0.0039	0.013		0.013	NO							
104	beta-BHC	µg/L	0.6	<0.01	NONE	NONE	0.014	0.046		0.046	NO							
105	gamma-BHC (aka Lindane)	µg/L	0.8	0.03	0.95	NONE	0.019	0.063	0.2	0.063	NO	*0.004*	NO	Pollutant present in both effluent and receiving water.	YES			
106	delta-BHC	µg/L	0.6	<0.01	NONE	NONE	NONE	NONE		NONE	No criteria							
107	Chlordane	µg/L	0.6	<0.05	2.4	0.0043	0.00057	0.00059		0.00059	NO							
108	4,4'-DDT	µg/L	0.6	<0.01	1.1	0.001	0.00059	0.00059		0.00059	NO							
109	4,4'-DDE	µg/L	0.6	<0.01	NONE	NONE	0.00059	0.00059		0.00059	NO							
110	4,4'-DDD	µg/L	0.6	<0.01	NONE	NONE	0.00083	0.00084		0.00084	NO							
111	Dieldrin	µg/L	0.6	<0.01	0.24	0.056	0.00014	0.00014		0.00014	NO							
112	alpha-Endosulfan	µg/L	0.6	<0.01	0.22	0.056	110	240		0.056	NO							
113	beta-Endosulfan	µg/L	0.6	<0.01	0.22	0.056	110	240		0.056	NO							
114	Endosulfan Sulfate	µg/L	0.6	<0.01	NONE	NONE	110	240		240	NO							

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

CTR#	DATE	Units	AQUATIC LIFE CALCULATIONS Freshwater: ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AQUATIC LIFE CALCULATIONS Freshwater: AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	PROPOSED LIMITS: Lowest AMEL	Lowest MDEL	Recommendation
71	2-Chloronaphthalene	µg/L												Interim Monitoring - No Limit
72	4-Chlorophenyl Phenyl Ether	µg/L												No Criteria Available
73	Chrysene	µg/L												Interim Monitoring - No Limit
74	Dibenzo(a,h)Anthracene	µg/L												Interim Monitoring - No Limit
75	1,2-Dichlorobenzene	µg/L												Interim Monitoring - No Limit
76	1,3-Dichlorobenzene	µg/L												Interim Monitoring - No Limit
77	1,4-Dichlorobenzene	µg/L										5	--	Tier 1 - RP to exceed Basin Plan WQO. Retain existing limit from Order 95-081, for protection of GWR & Antibacksliding.
78	3,3'-Dichlorobenzidine	µg/L												Interim Monitoring - No Limit
79	Diethyl Phthalate	µg/L												Interim Monitoring - No Limit
80	Dimethyl Phthalate	µg/L												Interim Monitoring - No Limit
81	Di-n-Butyl Phthalate	µg/L												Interim Monitoring - No Limit
82	2,4-Dinitrotoluene	µg/L												Interim Monitoring - No Limit
83	2,6-Dinitrotoluene	µg/L												No Criteria Available
84	Di-n-Octyl Phthalate	µg/L												No Criteria Available
85	1,2-Diphenylhydrazine	µg/L												Interim Monitoring - No Limit
86	Fluoranthene	µg/L												Interim Monitoring - No Limit
87	Fluorene	µg/L												Interim Monitoring - No Limit
88	Hexachlorobenzene	µg/L												Interim Monitoring - No Limit
89	Hexachlorobutadiene	µg/L												Interim Monitoring - No Limit
90	Hexachlorocyclopentadiene	µg/L												Interim Monitoring - No Limit
91	Hexachloroethane	µg/L												Interim Monitoring - No Limit
92	Indeno(1,2,3-cd)Pyrene	µg/L												Interim Monitoring - No Limit
93	Isophorone	µg/L												Interim Monitoring - No Limit
94	Napthalene	µg/L												No Criteria Available
95	Nitrobenzene	µg/L												Interim Monitoring - No Limit
96	N-Nitrosodimethylamine	µg/L												Interim Monitoring - No Limit
97	N-Nitrosodi-n-Propylamine	µg/L												Interim Monitoring - No Limit
98	N-Nitrosodiphenylamine	µg/L												Interim Monitoring - No Limit
99	Phenanthrene	µg/L												Interim Monitoring - No Limit
100	Pyrene	µg/L												Interim Monitoring - No Limit
101	1,2,4-Trichlorobenzene	µg/L												Interim Monitoring - No Limit
102	Aldrin	µg/L												Interim Monitoring - No Limit
103	alpha-BHC	µg/L												Interim Monitoring - No Limit
104	beta-BHC	µg/L												Interim Monitoring - No Limit
105	gamma-BHC (aka Lindane)	µg/L										0.2	--	Need limit Tier 3 - Characteristics of discharge. Discharge could contribute to an exceedance, because pollutant is present in the effluent & receiving water. Retain existing limit from Order 95-081, for protection of GWR (groundwater recharge) & Antibacksliding.
106	delta-BHC	µg/L												Interim Monitoring - No Limit
107	Chlordane	µg/L												Interim Monitoring - No Limit
108	4,4'-DDT	µg/L												Interim Monitoring - No Limit
109	4,4'-DDE	µg/L												Interim Monitoring - No Limit
110	4,4'-DDD	µg/L												Interim Monitoring - No Limit
111	Dieldrin	µg/L												Interim Monitoring - No Limit
112	alpha-Endosulfan	µg/L												Interim Monitoring - No Limit
113	beta-Endosulfan	µg/L												Interim Monitoring - No Limit
114	Endosulfan Sulfate	µg/L												Interim Monitoring - No Limit

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

					CTR CRITERIA					REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health		Basin Plan							Organisns Only		
CTR#	DATE	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O	Title 22 GWR	Lowest C	Tier 1: MEC >= Lowest C	B (RD-1)	Tier 2: B>C	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
115	Endrin	µg/L	0.6	<0.01	0.086	0.036	0.76	0.81		0.036	NO	<0.01	NO					
116	Endrin Aldehyde	µg/L	0.6	<0.01	NONE	NONE	0.76	0.81		0.81	NO							
117	Heptachlor	µg/L	0.6	<0.01	0.52	0.0038	0.00021	0.00021		0.00021	NO							
118	Heptachlor Epoxide	µg/L	0.6	<0.01	0.52	0.0038	0.0001	0.00011		0.00011	NO							
	Polychlorinated biphenyls (PCBs)	µg/L																
119	Aroclor 1016	µg/L	0.6	<0.1	NONE	0.014	0.00017	0.00017		0.00017	NO							
120	Aroclor 1221	µg/L	0.6	<0.1	NONE	0.014	0.00017	0.00017		0.00017	NO							
121	Aroclor 1232	µg/L	0.6	<0.1	NONE	0.014	0.00017	0.00017		0.00017	NO							
122	Aroclor 1242	µg/L	0.6	<0.1	NONE	0.014	0.00017	0.00017		0.00017	NO							
123	Aroclor 1248	µg/L	0.6	<1	NONE	0.014	0.00017	0.00017		0.00017	NO							
124	Aroclor 1254	µg/L	0.6	<0.05	NONE	0.014	0.00017	0.00017		0.00017	NO							
125	Aroclor 1260	µg/L	0.6	<0.01	NONE	0.014	0.00017	0.00017		0.00017	NO							
126	Toxaphene	µg/L	0.6	<0.1	0.73	0.0002	0.0073	0.00075		0.00075	NO	<0.5	NO					
	Barium	µg/L	0.7	22					1000		NO							
	Iron	µg/L	0.6	110					300		NO			Pollutant present in the effluent. Ferric products are added toprevent corrosion in the sewer lines.	YES			
	Methoxychlor	µg/L		<0.01					40		NO							
	2,4-D	µg/L		<2					100		NO							
	2,4,5-TP (Silvex)	µg/L		<0.5					10		NO							

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

			AQUATIC LIFE CALCULATIONS					AQUATIC LIFE CALCULATIONS				PROPOSED LIMITS		
			Freshwater					Freshwater						
CTR#	DATE	Units	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL	Recommendation
115	Endrin	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent or receiving water. Require interim monitoring.
116	Endrin Aldehyde	µg/L												Interim Monitoring - No Limit
117	Heptachlor	µg/L												Interim Monitoring - No Limit
118	Heptachlor Epoxide	µg/L												Interim Monitoring - No Limit
	Polychlorinated biphenyls (PCBs)	µg/L												Interim Monitoring - No Limit
119	Aroclor 1016	µg/L												Interim Monitoring - No Limit
120	Aroclor 1221	µg/L												Interim Monitoring - No Limit
121	Aroclor 1232	µg/L												Interim Monitoring - No Limit
122	Aroclor 1242	µg/L												Interim Monitoring - No Limit
123	Aroclor 1248	µg/L												Interim Monitoring - No Limit
124	Aroclor 1254	µg/L												Interim Monitoring - No Limit
125	Aroclor 1260	µg/L												Interim Monitoring - No Limit
126	Toxaphene	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent or receiving water. Require interim monitoring.
	Barium	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent at concentrations that could cause or contribute to an exceedance. Require interim monitoring.
	Iron	µg/L												Need limit Tier 3 - Type of facility & nature of discharge. Discharge could contribute to an exceedance, because pollutant is present in the effluent. Retain existing limit from Order 95-081, for protection of GWR (groundwater recharge) & Antibacksliding.
	Methoxychlor	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent at concentrations that could cause or contribute to an exceedance. Require interim monitoring.
	2,4-D	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent at concentrations that could cause or contribute to an exceedance. Require interim monitoring.
	2,4,5-TP (Silvex)	µg/L												Deleted limit from Order No. 95-081 because no RPA. New monitoring data (new information) indicated pollutant is not present in the effluent at concentrations that could cause or contribute to an exceedance. Require interim monitoring.

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
CSDLAC - Valencia WRP
(CA0054216, CI# 4993)

					CTR CRITERIA					REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health		Basin Plan							Organisms Only		
CTR#	DATE	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O	Title 22 GWR	Lowest C	Tier 1: MEC >= Lowest C	B (RD-1)	Tier 2: B>C	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
	Halomethanes	µg/L							100		NO							
FOOTNOTE:																		
	These metals are hardness dependent. CTR criteria was calculated using an average receiving water hardness of 388 mg/L.																	

TABLE R1

Reasonable Potential Analysis for Priority Pollutants
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			AQUATIC LIFE CALCULATIONS					AQUATIC LIFE CALCULATIONS				PROPOSED LIMITS		
			Freshwater					Freshwater						
CTR#	DATE	Units	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL	Recommendation
	Halomethanes	µg/L												Interim Monitoring - No Limit
FOOTNOTES 1														
	These metals are hardness dependent. CTR criteria was calculated using an average receiving water hardness of 388 mg/L.													

Table R2
REASONABLE POTENTIAL ANALYSIS

CSDLAC - Valencia WRP

CONSTITUENT	Units	Number of Samples	Maximum Observed Effluent Concentration	CV	Multiplier	Projected Maximum Effluent Concentration (99/99)	Dilution Ratio	Background Seawater Concentration	Projected Maximum Receiving Water Concentration	Water Quality Objectives	C-Human carcinogen NC-Human noncarcinogen AP-Aquatic life protection GWR-Groundwater Recharge protection	REASONABLE POTENTIAL
TOXICITY (chronic) survival, Ceriodaphnia	Tuc	66	2.5	0.3	1.28	3.19	0		3.19	1	AP	YES
TOXICITY (chronic) reproduction, Ceriodaphnia	Tuc	66	10	0.4	1.38	13.77	0		13.77	1	AP	YES
TOXICITY (chronic) Survival, Fathead minnow	Tuc	18	5	0.7	2.70	13.50	0		13.50	1	AP	YES
TOXICITY (chronic) growth, Fathead minnow	Tuc	18	5	0.5	2.10	10.51	0		10.51	1	AP	YES
MBAS	mg/L	99	0.6	0.5	1.35	0.81	0		0.81	0.5	GWR	YES
Nitrate + Nitrite as Nitrogen	mg/L	104	18.13	0.5	1.34	24.22	0		24.22	5	GWR & biostimulatory narrative WQO	YES
Nitrite as Nitrogen	mg/L	104	5.58	0.5	1.336	7.453675	0		7.45	1	GWR & HN	YES

* Effluent limits are prescribed for these constituents whose projected maximum receiving water concentrations exceed criteria.

Table R3
County Sanitation District of Los Angeles County
Valencia WRP

Total Recoverable Metals Criteria
(CA0054216, CI#4993)

Pollutant	HARDNESS (mg/L)	Freshwater CMC or Acute: CMC = WER x Conversion Factor x (exp {mA [ln(Hardness)] + bA}) WER	Conversion Factor*	mA	bA	**Total Recoverable Limit (µg/L)**	Dissolved Fraction Limit (µg/L)	Freshwater CCC or Chronic: CCC = WER x Conversion Factor x (exp {mC [ln(hardness)]+ bC}) WER	Conversion Factor	mC	bC	**Total Recoverable Limit (µg/L)**	Dissolved Fraction Limit (µg/L)
Cadmium	388	1	0.887275	1.128	-3.6867	**20.85**	18.50	1	0.852275	0.7852	-2.715	**7.14**	6.08
Copper	388	1	0.96	0.9422	-1.7	**50.22**	48.21	1	0.96	0.8545	-1.702	**29.72**	28.53
Chromium III	388	1	0.316	0.819	3.688	**5271.46**	1665.78	1	0.86	0.819	1.561	**628.33**	540.36
Lead	388	1	0.59344	1.273	-1.46	**458.68**	272.20	1	0.59344	1.273	-4.705	**17.87**	10.61
Nickel	388	1	0.998	0.846	2.255	**1477.36**	1474.40	1	0.997	0.846	0.0584	**164.25**	163.76
Silver	388	1	0.85	1.72	-6.52	**41.80**	35.53	1	none	none	none	**#VALUE!**	#VALUE!
Zinc	388	1	0.978	0.8473	0.884	**377.95**	370	1	0.986	0.8473	0.884	**378**	372.66

Table R4

CSDLAC - Valencia WRP
Pentachlorophenol Criteria Adjusted for pH

CTR footnote "f", Freshwater aquatic life criteria for Pentachlorophenol

CMC = exp [1.005 (pH) – 4.869]

				CMC (µg/L)
	pH value	(1.005 x pH)	(1.005 x pH) -4.869	exp [1.005 (pH) – 4.869]
Minimum	5.1	5.1255	0.2565	1.292398766
Average	7.1	7.1355	2.2665	9.645582128
Maximum	8.2	8.241	3.372	29.13674231

CCC = exp [1.005 (pH) – 5.134]

				CCC (µg/L)
	pH value	(1.005 x pH)	(1.005 x pH) -5.134	exp [1.005 (pH) – 5.134]
Minimum	5.1	5.1255	-0.0085	0.991536023
Average	7.1	7.1355	2.0015	7.400148
Maximum	8.2	8.241	3.107	22.35388206

The average of the effluent pH values was used to calculate the CTR Criteria for pentachlorophenol. However, even if the minimum pH had been used, the adjusted CTR criteria would still be greater than the Basin Plan WQO of 1 µg/L.