CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. R4-2006-0092

NPDES PERMIT NO. CA0053953

CITY OF LOS ANGELES

LOS ANGELES-GLENDALE WATER RECLAMATION PLANT

ATTACHMENTS:

1. FIGURE 1 – The Vicinity Map of the Los Angeles-Glendale WRP
2. FIGURE 2 – The Flow Diagram of Wastewater Treatment Processes
3. FIGURE 3 - Receiving Water Quality Monitoring Station Map

A. Stormwater Pollution Prevention Plan Requirements

B. Biosolids Use and Disposal Requirements

C. Generic Toxicity Reduction Evaluation (TRE) Workplan for POTWs

F. Fact Sheet including:

- Table D1 – Effluent Data for Priority Pollutants
- Table D2 – Effluent Data for Non-Priority Pollutants
- Table D3 – Receiving Water Data
- Table R1 – Reasonable Potential Analysis (RPA) using SIP Methodology
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State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. R4-2006-0092

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WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF LOS ANGELES
(Los Angeles-Glendale Water Reclamation Plant)

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

PURPOSE OF ORDER

1. City of Los Angeles (hereinafter City or Discharger) discharges tertiary-treated wastewater from its Los Angles-Glendale Water Reclamation Plant (Los Angeles-Glendale WRP or Plant) under waste discharge requirements contained in Order No. 98-047, adopted by this Regional Board on June 15, 1998. Order No. 98-047 also serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0053953), which regulates the discharge of treated wastewater to the Los Angeles River, a water of the State of California and of the United States.

2. Order No. 98-047 has an expiration date of May 10, 2003. Section 122.6 of Title 40, Code of Federal Regulations (40 CFR), and Section 2235.4 of Title 23, California Code of Regulations (CCR), state that an expired permit continues in force until the effective date of a new permit, provided that the permittee has made a timely submittal of a complete application for a new permit. On July 1, 2002, City filed a report of waste discharge (ROWD) and applied to the Regional Water Quality Control Board (Regional Board) for reissuance of waste discharge requirements (WDRs) and an NPDES permit to continue discharge of tertiary-treated wastewater. Therefore, the Discharger's permit has been administratively extended until the Regional Board acts on the new WDR and permit.

3. This Order is the reissuance of WDRs that serves as a NPDES permit for Los Angeles-Glendale WRP.

LITIGATION HISTORY

4. **1998 –** In 1998, the City of Los Angles filed a petition with the State Water Resources Control Board (State Board) for a stay of Order No. 98-047. The State Board dismissed the City's petition for review and its request for stay without review for the Los Angeles-Glendale WRP's NPDES permit.

5. **1999 –** On December 23, 1999, the City filed a Petition for a Writ of Mandate and application for stay challenging their permit (Order No. 98-047) and their associated Time

Schedule Orders and Cease and Desist Order. On December 29, 1999, the Court issued a stay of the contested effluent limits contained in these Orders.

6. **2000 –** On January 20, 2000, the City filed an Amended Petition for Writ of Mandate and request for Stay challenging their permit (Order No. 98-047) and their Time Schedule Order (Order No. 98-071). On August 21, 2000, the City filed a complaint for declaratory and injunctive relief with the United States District Court, Central District of California, Western Division, (*City of Los Angeles, City of Burbank, City of Simi Valley, and County Sanitation Districts of Los Angeles County, by and through their agent County Sanitation District Number 2 of Los Angeles County vs. United States Environmental Protection Agency, and Alexis Strauss, Director, Water Division, United States Environmental Protection Agency, Region IX [Case No. BS 060 957]*. The matter went before the court on August 31 and September 1, 2000. On November 30, 2000, the Superior Court filed its Decision on the matter [*Case No. BS 060 957*]) and ordered counsel for the petitioner to prepare, serve, and lodge a proposed Statement of Decision, Judgement and Writ, on or before December 14, 2000 with a final decision overturning portions of USEPA's partial approval letter of May 26, 2000 related to the conditional potential MUN (P* MUN) beneficial use of surface waters. Respondents were given until December 28, 2000, to serve and file objections.

7. **2001 –** Respondents filed objections on January 19, 2001, and Petitioners lodged a revised proposed Statement of Decision, Judgement of Writ, and a response to Respondent's objections on February 13, 2001. On April 4, 2001, the Superior Court signed and filed its final Statement of Decision, ordering that the judgement be entered granting the Petitioners' petition for a Writ of Mandamus, commanding the Respondents to vacate the Contested Effluent Limits, and ordering the adoption of new effluent limits at a new hearing. In June 2001, the Regional Board filed a notice of appeal with the State Court of Appeals contesting several, but not all, issues in the Superior Court's decision.

8. **2002 –** In its December 24, 2002, opinion, the Court of Appeal unanimously reversed the trial court decision; and, made the following determinations:

   A. Cost Issues - For existing objectives, water quality-based effluent limitations (WQBELs) must be developed without reference to costs and Clean Water Act (CWA) Section 301(b)(1)(C) does apply to POTWs. (POTWs are not exempt from WQBELS.)

   B. CEQA Requirements – The Environmental Impact Report (EIR) exemption in Section 13389 of the Water Code means that "CEQA imposes no additional procedural or substantive requirements" other than compliance with the CWA and Porter-Cologne Act. (NPDES permits are exempt from CEQA.)

   C. Compliance Schedules - Compliance schedules may be included within a NPDES permit only if the applicable water quality standards or water quality control plans permit inclusion of compliance schedules. (Compliance schedules must be contained in a Time Schedule Order or similar enforcement document if the Basin Plan does not allow the inclusion of compliance schedules in a NPDES permit.)

D. Narrative Toxicity - The Regional Board's narrative toxicity objective which was upheld does not violate 40 CFR 131.11(a)(2). (The narrative standard can remain in NPDES permits as an effluent limitation.)

Although the Court of Appeal decided in favor of the State Board on every issue they appealed, the December 24, 2002, decision was not certified for publication at that time.

9. **2003 –** In January 2003, the Court of Appeals took action to reconsider their decision. In February 2003, the Court of Appeals issued its final decision reversing the Superior Court's ruling on the issues appealed. On August 14, 2003, after rehearing, the Court of Appeals issued its final decision reversing the Superior Court's ruling on the issues appealed. The City of Los Angeles and City of Burbank (Cities) filed a petition with the Supreme Court on September 23, 2003. On November 19, 2003, the Supreme Court granted review of the Cities' Petition for Review of the underlying Court of Appeal decision. The granting of review automatically supercedes the Court of Appeal's decision and makes the decision no longer valid and precedent citable in court documents. The Cities submitted their opening briefs on December 19, 2003.

10. **2004 –** On March 8, 2004, the State Board filed their Answer to the Cities' Opening Brief to the Supreme Court. The Cities submitted their reply to the State Board's Answer on March 28, 2004. On April 25, 2004, six amicus curiae briefs were submitted to the Supreme Court in favor of the Cities' position. One amicus curiae brief was submitted in opposition to the Cities' position by the NRDC. On May 10, 2004, the CA Supreme Court accepted all seven amicus curiae briefs. Answers to the amicus briefs were originally due on May 26, 2004; however, the State Board asked for an extension until June 25, 2004. The Cities did the same and both extensions were granted. The answers to the amicus briefs were submitted on June 25, 2004.

11. **2005 –** Oral arguments for the Supreme Court were heard on January 4, 2005. An order from the Supreme Court limited the issue for oral argument to "Whether California's Porter-Cologne Water Quality Control Act requires a Regional Water Quality Control Board to take into account compliance costs when it sets specific pollutant limitations in a wastewater discharge permit issued to a publicly owned wastewater treatment facility." On April 4, 2005, the California Supreme Court issued its decision, affirming the judgement of the Court of Appeal, reinstating the wastewater discharge permits to the extent that the specified numeric limitations on chemical pollutants are necessary to satisfy federal Clean Water Act requirements for treated wastewater. Ordinarily the Court's decision would become final 30 days after issuance (i.e., it would have become final on May 4, 2005); however, both the Water Boards and the Cities filed petitions for rehearing. The Supreme Court reviewed the petitions for rehearing and remanded one remaining issue back to the trial court for resolution. The trial court was required to determine whether or not the permit restrictions were "more stringent" than required by federal law.

12. **2006 –** On June 28, 2006, the Superior Court judge signed the Statement of Decision which found that the following constituents had numeric effluent limitations more stringent than required to meet the federal law existing at the time that the Regional Board adopted the NPDES permit: benzene, bis(2-ethylhexyl)phthalate, cadmium, chromium VI, 1,2-dichloroethane, ethylbenzene, lead, selenium, tetrachloroethylene, toluene, and

toxaphene. It was also ordered that the contested effluent limits contained in Order No. 98-047 be vacated; that the respondents file a return (a revised NPDES permit) with the court by December 31, 2006; and that the stay of contested effluent limitations remain in effect until the return is served and filed by the Respondents with the Court.

FACILITY AND TREATMENT PROCESS DESCRIPTION

13. The Los Angeles-Glendale WRP is jointly owned by the City of Los Angeles and the City of Glendale. The Plant is located at 4600 Colorado Boulevard, Los Angeles, California, and treats wastewater generated from the Cities of Glendale, Burbank, Los Angeles, La Canada-Flintridge, and from Los Angeles Zoo. Figure 1 shows the location map of the Plant. The Los Angeles-Glendale WRP serves a population of approximately 230,000. The Los Angeles-Glendale WRP is a tertiary wastewater treatment plant that treats municipal wastewater from domestic, commercial, and industrial sources. The Plant is designed to treat an average dry weather flow of 20 million gallons per day (mgd) with a peaking factor of 1.5. In 2002, the average annual flow was 17 mgd. The Los Angeles-Glendale WRP discharges the treated wastewater to the Los Angeles River.

14. The United States Environmental Protection Agency (USEPA) and the Regional Board have classified the Los Angeles-Glendale 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.

15. In 1968, the cities of Los Angeles and Glendale entered into a joint powers agreement to conduct a feasibility study for the treatment plant. The Los Angeles-Glendale Water Reclamation Plant was constructed in the early 1970s. By 1976 the plant began operation, and in 1986 the plant was operating at full capacity.

16. The Los Angeles-Glendale WRP is one of the two upstream plants of the City's Hyperion Treatment System, the Donald C. Tillman WRP being the other. The wastewater is taken by the Los Angeles-Glendale WRP from the North Outfall Sewer line. In case of plant operational problems or a need for plant shutdown, wastewater can be diverted back to the North Outfall Sewer which flows to the Hyperion Treatment Plant for treatment. The City of Los Angeles also contracts with the City of Burbank to accept solids from the Burbank Water Reclamation Plant (BWRP) as well as flows above BWRP capacity.

17. Pursuant to 40 CFR, Part 403, the Los Angeles-Glendale WRP developed, and has been implementing, an industrial wastewater Pretreatment Program, which has been approved by USEPA and the Regional Board.

18. Treatment at the Los Angeles-Glendale WRP consists of bar screening, primary sedimentation, biological treatment using activated sludge with fine pore aeration, secondary clarification, coagulation, mixed dual media filtration, chlorination and dechlorination. See Figure 2 for the Plant flow diagram.

19. Sludge from the primary and secondary processes, as well as wastes from other sidestreams, are returned to the North Outfall Sewer line for treatment at the Hyperion Treatment Plant.

20. ***Nitrification and de-Nitrification Pilot Studies***. In order to achieve compliance with nitrogen compounds, the City has conducted pilot studies on nitrification and de-nitrification process (NDN) at Los Angeles-Glendale WRP. The NDN process they have been investigating include Modified Ludzack-Ettinger (MLE), Enhanced MLE (eMLE) and MLE or eMLE with denitrifying filters. MLE employs one anoxic zone before secondary treatment (activated sludge) and the eMLE with 2 anoxic zones – one before the aerobic zone and one after the aerobic zone followed by a trimming aerobic zone.

    The Bureau expects to complete construction of the NDN treatment facility in May 2007 and anticipates taking 90 days to optimize operation of NDN facilities.

21. ***Water Recycling Facility***. A portion of the treated wastewater is used for irrigation and industrial uses. The use of recycled water is regulated under Water Reclamation Requirements contained in Order No. 79-156. Order No. 79-156 was readopted on March 24, 1986, through blanket Order No. 86-016 and the same Order was readopted again on May 12, 1997, through blanket Order No. 97-072. The effluent is stored in a 2-million gallon storage tank located across Los Angeles River and Interstate 5 in Griffith Park. The Department of Water and Power (DWP) for the City of Los Angeles and the Public Service Department for the City of Glendale are the agencies who distribute the recycled water. There are currently over 40 users of the recycled water produced by the Plant. Recycled water is used mainly for irrigation and it is also used in cooling towers at the Glendale Power Plant and for industrial and process at the Los Angeles-Glendale WRP.

22. ***Storm Water Management.*** The City has filed a Notice of Intent to comply with the State Board's General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities; has developed a Storm Water Pollution Prevention Plan (SWPPP) for storm water that does not enter the treatment system and has retained coverage under the General Industrial Storm Water permit. Storm water in the Los Angeles-Glendale WRP is collected by a storm drain that is tied into the final effluent surge chamber.

DISCHARGE OUTFALL AND RECEIVING WATER DESCRIPTION

23. The Los Angeles-Glendale WRP discharges the treated wastewater to the Los Angeles River, a water of the United States, at a point located approximately 1,400 feet downstream of Colorado Boulevard (latitude 34°08'25", longitude 118°17'24"), in the Los Angeles River Narrows, above the river Estuary.

24. The Los Angeles-Glendale WRP outfall is located at the Los Angeles River narrows, at a section known as the Glendale Narrows. The U. S. Army Corps of Engineers choose to construct the Los Angeles River without a bottom concrete lining through much of the Glendale Narrows, because rising groundwater during a gaining creek scenario, was so strong that it would break any bottom concrete liner. In this area, the river is a rocky, unlined bottom with concrete-lined or rip-rap sides. In the river bed, willows, sycamores, and cottonwoods provide habitat for birds and other wildlife. When the ground water is high in the San Fernando Valley basin, the area is fed by natural springs. Many trails and paths along the river in this area are heavily used by the public for hiking, horseback

riding, and bird watching. From the narrows, the Los Angeles River flows through downtown Los Angeles and the coastal plain to discharge into San Pedro Bay east of Long Beach Harbor.

DISCHARGE QUALITY DESCRIPTION

25. Discharger's Annual Monitoring Report from 1998 to 2005 showed the following:

    A. Treated wastewater average annual dry weather effluent flow rate of 12 mgd.

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

    C. 7-day median and daily maximum coliform values as <1 Most Probable Number (MPN)/ 100 ml in the treated wastewater.

26. 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. It is not known 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	11.7	17.5	4.7
	pH	pH units	7.2	7.6	6.6
	Temperature	°F	74	82	---
	$BOD_5 20^0C$	mg/L	7	12.0	---
	Suspended solids	mg/L	3.7	9.4	---
	Settleable solids	ml/L	<0.1	<0.1	<0.1
	Total dissolved solids	mg/L	676	730	614
	Chloride	mg/L	152	162	144
	Sulfate	mg/L	137	164	114
	Boron	mg/L	0.5	0.7	0.4
	Phosphate	mg/L	2.4	3.2	1.7
	Turbidity (24-hr composite)	NTU	1.3	3	1.0
	Oil and grease	mg/L	0.1	3.0	ND
	Fluoride	mg/L	0.3	0.4	0.3
	MBAS	mg/L	0.2	0.3	0.1
	Residual Chlorine (Dechlorinated)	mg/L	<0.1	<0.1	<0.1
	Total Coliform	CFU/ 100mL	1	1	<1
	Ammonia-N	mg/L	12.3	19.6	6.3
	Organic-N	mg/L	1.7	2.2	0.9
	Nitrate-N	mg/L	2.8	5.4	0.3
	Nitrite-N	mg/L	0.5	0.9	0.2
	Total Nitrogen	mg/L	17.3	21.6	13.5
	Iron	mg/L	0.009	0.108	ND

Table 1 - 2002 Annual Summary Effluent Monitoring Summary					
CTR#	Constituent	Unit	Average	Maximum	Minimum
4	Cadmium	µg/L		<1	<1
6	Copper	µg/L		19.0	<4
7	Lead	µg/L		8.0	<2
8	Mercury	µg/L	0.12	1	0.02
13	Zinc	µg/L		73	19.0
14	Cyanide	µg/L	3.3	16.0	2
38	Tetrachloroethylene	µg/L		0.36	<1
60	Benzo (a) Anthracene	µg/L		<2	<1
68	Bis(2-ethylhexyl)phthalate	µg/L		6.5	<1
73	Chrysene	µg/L		<1	<1
74	Dibenzo(a,h)Anthracene	µg/L		<1.5	<1
97	N-Nitrosodi-n-propylamine	µg/L		<4.5	<2

The rest of the priority pollutants were either ND or detected below their respective water quality criteria.

26. 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.

STUDIES

27. **Receiving Water Copper Translator and Hardness Study.**

A. The City of Los Angeles proposed site specific copper conversion factor for the areas downstream of the LAG WRP based on a study performed by Larry Walker Associate (LWA) (LWA, 2003). For the area downstream of the LAG WRP, the proposed conversion factors for copper were 0.77 for chronic and 0.84 for acute (Table 2). EPA and the Regional Board expressed concern about the use of these numbers given the lack of consistent relationships between total recoverable and dissolved concentrations in the dataset.

Table 2 - Receiving Water Copper Translator and Hardness for LAG WRP				
Copper Translator (Dissolved/Total)				
Chronic	0.77			
Acute	0.84			
Hardness (mg/L)				
	Dry Season		Wet Season	
	Above Outfall	Below Outfall	Above Outfall	Below Outfall
Average	218	282	300	331
Median	210	280	269	322
Minimum	186	244	222	256
Maximum	276	328	507	416
N	23	35	9	13

A hardness value of 261 mg/L was used to convert the dissolved metal CTR criteria into the total recoverable metal form.

B. While all testing requires an ELAP-Certified Laboratory, the City of Los Angeles provided a rationale for selecting non-certified Frontier Geosciences Laboratory, because of its ability to perform testing at low detection limit for copper (0.1 µg/L). There are no California laboratories under ELAP-Certification capable of performing such low-level tests.

a. On January 9, 2002, the City transmitted documents, containing four items listed below requested by the Regional Board staff, requiring the use of Frontier Geosciences Laboratory to analyze the samples for the Los Angeles River Copper Translator Study.

i. Standard Operating Procedure;

ii. Data regarding Detection Limit Studies;

iii. Example of Copper Testing Analytical Runs Including Calibrations, Sample Analysis, Duplicates, and Spikes; and

iv. Performance Evaluation Study Results

b. In accordance with Standard Provisions Applicable to Waste Discharge Requirements, Item 14 “Unless otherwise permitted by the Regional Board Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. The Regional Board Executive Officer may allow use of an uncertified laboratory under exceptional circumstances, such as when the closest laboratory to the monitoring location is outside the State boundaries and therefore not subject to certification.” Therefore, the Executive Officer approved the City’s use of the Frontier Geosciences Laboratory for the low detection analyses of copper for the translator study on February 11, 2002.

APPLICABLE PLANS, POLICIES AND REGULATIONS

28. ***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 and enhance 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.

29. ***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 water 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 (P*MUN) designated water bodies, which is not applicable to this discharge.

Ammonia Water Quality Objective (WQO) - 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 TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River and apply at the end of pipe.

Chloride WQO - The 1994 Basin Plan contained water quality objectives for chloride in Table 3-8. However, the chloride objectives for some waterbodies were revised on January 27, 1997, by the Regional Board, with the adoption of Resolution No. 97-02, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Policy for Addressing Levels of Chloride in Discharges of Wastewaters*. Resolution No. 97-02 was approved by the State Board, the Office of Administrative Law, and USEPA on October 23, 1997, January 9, 1998, and February 5, 1998, respectively, and are now in effect. The chloride WQO was revised from 150 mg/L to 190 mg/L, for the following segments of the Los Angeles River:

a. Between Sepulveda Flood Control Basin and Figueroa Street (including Burbank Western Channel only), and

b. Between Figueroa Street and the estuary (including Rio Hondo below Santa Ana Freeway only).

The final effluent limitations for chloride prescribed in this Order are based on the revised chloride WQOs 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.

30. ***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)*.

31. ***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, as a result of a legal challenge and federal court order, 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.

32. ***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. On this date, the SIP became effective with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. 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:

a. 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);

b. Monitoring requirements for priority pollutants with insufficient data to determine reasonable potential;

c. Monitoring requirements for 2,3,7,8–TCDD equivalents; and,

d. Chronic toxicity control provisions.

The CTR became effective on May 18, 2000 (codified as 40 CFR Part 131.38). The SIP (which implements CTR criteria) was revised by the State Board on February 24, 2005. The revised SIP became effective on May 31, 2005. Toxic pollutant limits are prescribed in this Order to implement the CTR, the SIP, 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 they can demonstrate that the chosen risk level is adequately protective of the most highly exposed subpopulation, and have 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.

33. ***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.

34. ***Beneficial Uses -*** The Basin Plan contains water quality objectives and beneficial uses for the Los Angeles River and its contiguous waters.

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

Los Angeles River upstream of Figueroa Street- Hydrologic Unit 405.21	
Existing:	groundwater recharge; water contact[1] and non-contact water recreation; warm freshwater habitat, wildlife, and wetland[2] habitat.
Potential:	municipal and domestic supply[3]; and industrial service supply.
Los Angeles River downstream of Figueroa Street - Hydrologic Unit 405.15	
Existing:	groundwater recharge; water contact [1] and non-contact water recreation; warm freshwater habitat.
Potential:	municipal and domestic supply[3]; industrial services supply; and wildlife habitat.
Los Angeles River downstream of Figueroa Street - Hydrologic Unit 405.12	
Existing:	groundwater recharge; water contact[1] and non-contact water recreation; rare, threatened, or endangered species; warm freshwater, wildlife, and marine habitat.
Potential:	municipal and domestic supply[3] ; and industrial services supply; industrial process supply; migration of aquatic organisms; spawning, reproduction, and/or early development; and shellfish harvesting.
Los Angeles River Estuary - Hydrologic Unit 405.12	
Existing:	industrial service supply; navigation; water contact and non-contact water recreation; commercial and sport fishing; estuarine habitat; marine habitat; wildlife habitat; rare, threatened, or endangered species[4]; migration of aquatic organisms[5], spawning, reproduction, and/or early development[5], and wetland habitat.
Potential:	Shellfish harvesting.

1 Access is prohibited by Los Angeles County DPW.

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

3 The potential municipal and domestic supply beneficial uses for the water body is consistent with the State Water Resources Control Board Order No. 88-63 and Regional Board Resolution No. 89-003; however, the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

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:

San Fernando Basin (East of Highway 405 overall) - DWR Basin No[6]. 4-12	
Existing:	municipal and domestic supply, industrial service supply; industrial process supply; and, agricultural supply.
Los Angeles Coastal Plain (Central Basin) – DWR Basin No[6]. 4-11	
Existing:	municipal and domestic supply, industrial service supply; industrial process supply; and, agricultural supply.
Los Angeles Coastal Plain (West Coast Basin) – DWR Basin No[6]. 4-11	
Existing:	municipal and domestic supply, industrial service supply; industrial process supply; and, agricultural supply.

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.

35. ***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.

MCL Development Process – Health and Safety Code §116365(a) requires the Department of Health Services (DHS), while placing primary emphasis on the protection of public health, to establish a contaminant's maximum contaminant level (MCL) at a level as close as is technically and economically feasible to its public health goal (PHG). The PHG—established by Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA)—is the contaminant's concentration in drinking water that does not pose any significant risk to health, derived from a human health risk assessment.

As part of the MCL process, DHS evaluates the technical and economic feasibility of regulating a chemical contaminant. Technical feasibility includes an evaluation of commercial laboratories' ability to analyze for and detect the chemical in drinking water,

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

the costs of monitoring, and the costs of treatment required to remove it. Costs are required by law to be considered whenever MCLs are adopted.

Then, the proposed MCL moves through a formal regulatory process. DHS releases proposed regulations for a 45-day public comment period. If any "Post-hearing" changes made in response to comments, DHS subsequently provides an additional 15-day public comment period. Once DHS completes its process, it submits the regulation package, including responses to public comments, to the Office of Administrative Law (OAL). OAL has 30 working days to review the regulation and approve or reject it. If approved by OAL, it is filed with the Secretary of State, becoming effective in 30 calendar days.

Groundwater Recharge – Sections of the Los Angeles River, downstream of the LAG WRP discharge point, is designated as GWR. The depth of groundwater below the LAG WRP is approximately 50 feet below ground surface. Surface water from the Los Angeles River enters the San Fernando Valley and the Central Los Angeles Coastal Plain Groundwater Basins. Since ground water from these basins is used to provide drinking water to people, Title 22-based limits are needed to protect that drinking water supply. By limiting the contaminants in the LAG WRP discharge, the amount of pollutants entering the surface waters and groundwater basins are correspondingly reduced. Once groundwater basins are contaminated, it may take years to clean up, depending on the pollutant. Compared to surface water pollution, investigations and remediation of groundwater are often more difficult, costly, and extremely slow. For these reasons Title 22-based limits will remain in the NPDES permit.

Groundwater levels in the San Fernando Valley Groundwater Basin (Basin) have been fairly stable over the past 20 years since adjudication of the Basin. However, hydrographs show a variation of approximately 5 feet to 40 feet in the western part of the Basin, 40 feet in the southern and northern parts of the Basin, and a variation of approximately 80 feet in the eastern part of the Basin (Update 2003, Department of Water Resources Bulletin 118 *California's Groundwater*).

Groundwater Data obtained from the Regional Boards' Leaking Underground Storage Tank Program database was reviewed. Groundwater monitoring wells in the vicinity of the Glendale Narrows soft-bottom Los Angeles River area indicate that groundwater ranges between 5 to 55.6 feet below ground surface. The base of the Los Angeles River channel is approximately 24 feet below ground surface (July 2004, Appendix A Details of Channel Geometry, *Modeling Analysis for the Development of TMDLs for Metals in the Los Angeles River and Tributaries*). Therefore groundwater is encountered down to approximately 30 feet below the base of the Los Angeles River. Depending upon groundwater pumping rates and seasonal variation, the soft-bottom reach of the Los Angeles River can act as both a gaining and losing stream situation. Thus, there is the potential for interaction and mixing of groundwater and surface water in the effluent-dominated Los Angeles River. In times of drought, when the groundwater table drops, the Glendale Narrows segment of the Los Angeles River is more of a losing stream, because surface water percolates to recharge the groundwater basin.

36. ***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.

37. ***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 Los Angeles River Watershed and other watersheds in the region can be obtained from the Regional Board's web site at http://www.waterboards.ca.gov/losangeles/html/programs/regional_programs.html#

Pursuant to this Regional Board's watershed initiative framework, the Los Angeles River Watershed Management Area was the targeted watershed for fiscal year 1999-2000. However, the NPDES permit renewals were originally re-scheduled for the 2003-2004 fiscal year so that provisions of the CTR and SIP could be incorporated into the permits. However, delays in the renewal were caused by lengthy litigations.

REGULATORY BASES FOR EFFLUENT AND RECEIVING WATER LIMITS AND DISCHARGE REQUIREMENTS

38. ***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), 2000;

d. Administrative Procedures Manual and Administrative Procedure Updates; and

e. Porter-Cologne Water Quality Act (Water Code § 13000 et seq).

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 (EPA-833-B-94-002), 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).

j. USEPA National Recommended Water Quality Criteria: 2002, November 2002 (EPA –822-R-02-047);

k. USEPA Drinking Water Standards, 40 CFR 141 and 142, Federal Register Vol. 57, No.138 (July 17,1992);

l. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, October, 2002 (EPA-821-R-02-012); and,

m. *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, October 2002 (EPA-821-R-02-013).

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.

39. ***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 their discretion, to express limits in additional units (e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both.

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

40. ***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 for certain pollutants 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.

41. ***Pretreatment -*** Pursuant to 40 CFR Part 403, the City developed and has been implementing an approved industrial wastewater Pretreatment Program for POTWs owned and operated by the City. The City's Pretreatment Program was approved by USEPA on June 30, 1983. In 1989, USEPA delegated the authority to administer pretreatment programs in California to the State Board and Regional Boards. Thus, this Regional Board became the approval authority of pretreatment programs in the Los Angeles and Ventura Counties. This Order requires the City to continue the implementation of the approved Pretreatment Program and modifications thereof.

42. ***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. However, Los Angeles-Glendale WRP does not process sludge at this time. The sludge generated from operating this facility is returned to North Outfall Sewer and eventually transported to Hyperion treatment Plant for further treatment.

43. ***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 Los Angeles-Glendale WRP's premises. On April 8, 1992, the City filed a Notice of Intent to comply with the requirements of the general permit. City developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP), to comply with the State Board's Order No. 97-03-DWQ.

44. ***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.

45. ***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) of the CWA establishes express statutory language prohibiting the backsliding of effluent limitations. It consists of the following three parts:

    A. Section 402(o)(1) prohibits (subject to exceptions in section 303(d)(4) and/or 402(o)(2)) the relaxation of effluent limitations for two situations:

        a. When a permittee seeks to revise a technology-based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent; and,

        b. When a permittee seeks relaxation of an effluent limitation which is based upon a changed State treatment standard or water quality standard.

    B. Section 402(o)(2) outlines specific exceptions to the general prohibition against establishment of less stringent effluent limitations. Codified in the NPDES regulations at 40 CFR 122.44(l), Section 402(o)(2) provided that the establishment of less stringent limits may be allowed where:

        a. There have been material and substantial alterations or additions to the permitted facility which justify this relaxation;

b. New information (other than revised regulations, guidance, or test methods) is available that was not available at the time of permit issuance which would have justified a less stringent effluent limitation;

c. Technical mistakes or mistaken interpretations of the law were made in issuing the permit under Section 402(a)(1)(b);

d. Good cause exists due to events beyond the permittee's control (e.g., acts of God) and for which there is no reasonably available remedy;

e. The permit has been modified under certain specified sections of the CWA; or,

f. The permittee has installed and properly operated and maintained required treatment facilities, but still has been unable to meet the permit limitations (relaxation may only be allowed to the treatment levels actually achieved).

Although the statute identified six exceptions where effluent limitations may be relaxed, the language specifically stated that exception "c" (as listed above) does not apply to water quality-based effluent limitations. Further, exception "e" as listed above only concerns sections of the CWA governing technology-based limits. Thus, exceptions c & e would only apply to technology-based effluent limitations.

C. Section 402(o)(3) prohibits the relaxation of effluent limitations in all cases if a revised effluent limitation would result in a violation of applicable effluent limitation guidelines or water quality standards, including antidegradation requirements. Thus, even if any of the antibacksliding exceptions outlined in either the statute or regulations are applicable, Section 402(o)(3) acts as a floor and restricts the extent to which effluent limitations may be relaxed. This requirement affirms existing provisions of the CWA that require limits, standards, and conditions to ensure compliance with applicable technology-based limits and water quality standards.

46. ***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 and numeric 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 24 toxic pollutants and numeric human health criteria for 92 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. CTR's Compliance Schedule provisions sunsetted on May 18, 2005. After this date, the provisions of the SIP allow for Compliance Schedules not to exceed five years from issuance or past May 17, 2010, which ever is sooner. 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.

47. ***Types of Pollutants -*** For CWA regulatory purposes, pollutants are grouped into three general categories under the NPDES Program: conventional, toxic, and non-conventional. By definition, there are five conventional pollutants (listed in 40 CFR section 401.16) – 5-day biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease. Toxic or "priority" pollutants are those defined in Section 307(a)(1) of the CWA (and listed in 40 CFR section 401.15 and 40 CFR Part 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.

48. ***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 Part 133. These technology-based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of five-day biochemical oxygen demand, total suspended solids, and pH.

49. ***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 Los Angeles River are contained in the Basin Plan and CTR, as described in previous findings.

50. ***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.

51. **Stringency Requirements for Individual Pollutants –** This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD and TSS. Restrictions on BOD and TSS are specified in federal regulations as discussed in findings. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum federal technology-based requirements that are necessary to meet water quality standards.

    This Order contains a pollutant restriction that is more stringent than applicable federal requirements and standards. Specifically, this Order includes an effluent limitation for bis(2-ethylhexyl)phthalate, that is more stringent than the applicable federal standard, but that is nonetheless necessary to meet numeric objectives or protect beneficial uses. The rationale for including this limitation is explained in Section X.2 of the corresponding Fact Sheet. In addition, the Regional Water Board has considered the factors in Water Code section 13241, as discussed in Section X.3 of the corresponding Fact Sheet.

    Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the California Toxics Rule, the California Toxics Rule is the applicable standard pursuant to 40 C.F.R. 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 1, 2001. All designated beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the [Clean Water] Act" pursuant to 40 C.F.R. 131.21(c)(1). [The remaining water quality objectives (Basin Plan Amendments) implemented by this Order were subsequently approved by USEPA, and are applicable water quality standards pursuant to 40 C.F.R. 131.21(c)(2).] Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the Clean Water Act and the applicable water quality standards for purposes of the Clean Water Act.

52. ***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.

53. ***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.

Los Angeles River, Los Angeles 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. Los Angeles River Reach 3 (Figueroa Street to Riverside Drive) – Hydrologic Unit 405.21: Ammonia, nutrients, odors, and scum/foam-unnatural;

B. Los Angeles River Reach 2 (Carson to Figueroa Street) – Hydrologic Unit 405.15: Ammonia, high coliform count, lead, nutrients (algae), odors, oil, and scum/foam-unnatural;

C. Los Angeles River Reach 1 (Estuary to Carson Street) – Hydrologic Unit 405.12: Total aluminum, ammonia, dissolved cadmium, dissolved copper, and high coliform count; and,

D. Los Angeles River Estuary – Hydrologic Unit 405.12: Chlordane, DDT, Lead, PCBs, and Zinc.

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.

54. ***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, which 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, Section 130.7. TMDLs must be developed for the pollutants of concern which impact the water quality of water bodies on the 303(d) list. According to the TMDL schedule, under the amended consent decree, Heal the Bay, Santa Monica Bay Keeper, et al. v. Browner, et al. (March 23, 1999), the trash, nitrogen, and metals TMDLs for the Los Angeles River must be completed by March 2001, March 2003, and March 2004, respectively. The coliform TMDL for Los Angeles Harbor is scheduled for completion by March 2006.

1. **Nitrogen Compounds TMDL.** On July 10, 2003, the Regional Board adopted Resolution No. 2003-009, *Amendment to the Basin Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River (Nitrogen Compounds TMDL)*. On November 19, 2003, the State Board approved *the Nitrogen Compounds TMDL*. However, on December 4, 2003, the Regional Board revised the Nitrogen Compound TMDL by adopting Resolution No. 2003-016, *Revision of Interim Effluent Limits for Ammonia in the Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River.* Resolution No. 2003-016 only revised the portion of the Nitrogen Compounds TMDL containing interim limits for total ammonia as nitrogen, for the Glendale and Tillman WRPs. All other portions of the TMDL remained unchanged. The *Nitrogen Compounds TMDL* went into effect on March 23, 2004, when the Regional Board filed the Notice of Decision with the California Resources Agency.

2. **Trash TMDL.** On January 25, 2001, the Regional Board adopted Resolution No. 01-006. However, on September 19, 2001, the Regional Board reconsidered Resolution No. 01-006 and adopted Resolution No. 2001-013, *Amendment to the Basin Plan for the Los Angeles Region to Incorporate a TMDL for Trash in the Los Angeles River (Trash TMDL)*, which supercedes Resolution No. 01-006. On February 19, 2002, the State Board adopted Resolution No. 02-038, approving the Regional Board's Trash TMDL.

   The TMDL subsequently was approved by the State Water Quality Control Board on February 19, 2002 and by OAL on July 16, 2002. Since the State Board and OAL failed to approve the TMDL in time to meet the relevant federal consent decree, USEPA promulgated its own Trash TMDL. Upon approval of the Regional Board's TMDL by OAL, USEPA approved the Regional Board's LA River Trash TMDL on August 1, 2002, and deemed it to have superceeded the TMDL promulgated by USEPA.

   The City of Los Angeles and the County of Los Angeles both filed petitions and complaints in the Los Angeles Superior Court challenging the LA River Trash TMDL. Subsequent negotiations led to a settlement agreement, which became effective on September 23, 2003. The Court of Appeal rejected the claims litigated by the cities, but found that the Water Board did not adequately complete the environmental checklist. The Court therefore affirmed a writ of mandate issued by the trial court, which orders the Water Board to set aside and not implement the TMDL until it has been brought into compliance with CEQA.

   On June 6, the Regional Board set aside the TMDL and Resolution No. 01-013 which established it, pursuant to the writ of mandate. On June 28, 2006, a CEQA scoping meeting was conducted. Regional Board staff revised the CEQA checklist in response to comments received; prepared a Basin Plan Amendment to incorporate the LA River Trash TMDL; and, have scheduled the item for Board adoption at the October 24, 2006 public hearing, which was cancelled. A new hearing schedule is not available.

3. **Metal TMDL –** On June 2, 2005, the Regional Board adopted Resolution No. R05-006, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Metals for the Los Angeles River and its Tributaries* (*LA River Metals TMDL*). The LA River Metals TMDL contains waste load allocations for copper, lead, cadmium and zinc. Reasonable Potential Analysis (RPA) showed exceedances of water quality objectives in receiving water and the pollutants were detected in the effluent for copper. Therefore, numeric limitation has been prescribed for copper in this permit. Lead, cadmium, and zinc did not show reasonable potential. However, consistent with the SIP Procedures and TMDL WLAs, effluent limitations for these metals have been prescribed. On October 20, 2005, the State Board approved the *LA River Metals TMDL* by adopting Resolution No. 2005-0077. On December 9, 2005 and December 22, 2005, respectively, OAL and USEPA approved the *LA River Metals TMDL*. It went into effect on January 11, 2006. The numeric limitations are consistent with the WLAs and provisions of the TMDL. "EPA's interpretation of 40 CFR 122.44(d)(1)(vii)(B) is that available waste load allocations must be incorporated into corresponding permit effluent limitations, irrespective of reasonable potential."

   The LA River Metals TMDL is in effect. It assigns wasteload allocations (a portion of the loading capacity of the **receiving water**) to each identified priority pollutant source of waste. Wasteload allocations for select metals in a TMDL were calculated by taking the median hardness, referenced in the TMDL staff report, and adjusting the CTR chronic or acute criteria according to Section 1.4.1 and Appendix 3 of the SIP. These TMDL wasteload allocations were not expressed with averaging periods in the TMDL.

   Therefore, NPDES permit writers must take the extra step of expressing the assigned wasteload allocations as WQBELs by using the calculation procedures in Section 1.4 of the SIP. This is consistent with the LA River Metals TMDL implementation element. Calculating end of pipe effluent limitations will ensure that the in-stream concentrations of each metal meet water quality standards.

55. ***Mixing Zones, Water Effects Ration (WER) and Dilution Credits -*** Mixing zones, dilution credits, WER, and attenuation factors are not authorized in this Order. Allowance of a mixing zone is in the Regional Board's discretion under Section 1.4.2 of the SIP and under the Basin Plan (Basin Plan Chapter 4, page 30). If the Discharger subsequently conducts appropriate mixing zone, WER, and dilution credit studies, the Regional Board can evaluate the propriety of granting a mixing zone or establishing dilution credits.

Water Effects Ratio – The City of Los Angeles, in conjunction with the City of Burbank, is pursuing two separate water effect ratio (WER) studies, one for copper and another for ammonia. Larry Walker Associates (LWA) has been hired by the cities to conduct both the LA River Copper WER Study and the LA River Ammonia WER, according to their respective approved workplans. Technical Advisory Committees (TACs) have been assembled to provide independent review of the proposed WERs. A memorandum dated June 20, 2006, written by LWA, addressed to the Copper WER TAC, presents the results of sampling conducted and recommends different WERs for various reaches of the LA River. LWA was recommending a 3.7 WER for the Los Angeles-Glendale WRP. Both

WER studies have yet to be approved by the Regional Board. Although the WER studies may not be finalized before the NPDES permit goes to the Board for renewal, this permit contains a reopener which allows the modification of final effluent limits, if at the conclusion of necessary studies conducted by the Cities, the Regional Board determines that dilution credits, attenuation factors, water effect ratios, or metal translators are warranted.

Dilution and Attenuation Factors – 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 LAG WRP at this time, because the City has not provided the necessary site-specific data or studies regarding the ground water basins in the San Fernando Valley and the Central Los Angeles Coastal Plain Groundwater Basin areas.

At this time, the Regional Board has concluded that mixing zones, WER, and dilution credits would be inappropriate to grant, in light of the following factors:

A. The Los Angeles-Glendale WRP discharge contributes one of the largest flows (effluent dominated) into the Los Angeles River watershed in the vicinity of the discharge point where the effluent may receive limited mixing and dilution during dry weather. Wet weather provides diluting flows;

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

C. Several reaches of the Los Angeles 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 reasonable protection of the beneficial uses listed in Finding 34;

F. Consistent with Antidegradation Policies;

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

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

I. Because the final WER study reports have not been approved by the Board.

56. Specific effluent limitations for each constituent contained in this Order were developed in accordance with the foregoing laws, regulations, plans, policies, and guidance. The

specific methodology and example calculations are documented in the Fact Sheet prepared by Regional Board staff that accompanies this Order.

REASONABLE POTENTIAL ANALYSIS

57. 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:

1. 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.

2. Nitrate plus nitrite as nitrogen and other constituents with non-CTR based limits – RPA was conducted for Nitrate plus Nitrite as Nitrogen and other constituents (Table R2 of the accompanying Fact Sheet) using the Discharger's effluent data from their self monitoring reports. The effluent data for Non-priority pollutants is summarized in Table D2 of the accompanying Fact Sheet. The TSD RPA procedure compares the effluent data with the Basin Plan water quality objectives (WQOs) and other applicable criteria, and uses statistics to predict a receiving water concentration. Based on information submitted to the Regional Board by the Discharger, and using the TSD RPA procedure, the Regional Board has determined that there is a reasonable potential that the discharge will cause or contribute to an exceedance of the applicable criteria for: Nitrate plus Nitrite as Nitrogen, nitrite nitrogen, nitrate nitrogen, tetrachloroethylene, and bis(2-ethylhexyl)phthalate. Therefore, the Order contains numeric effluent limitations for Nitrate plus Nitrite as Nitrogen, nitrite nitrogen, nitrate nitrogen, tetrachloroethylene, and bis(2-ethylhexyl)phthalate.

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 receiving water data contained in Table D3. The RPA compares the effluent data with water quality objectives in the Basin Plan and CTR.

1. ***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:

   a. 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 3).

   b. For the second tier, the observed maximum ambient background concentration (B) for the pollutant is compared with the adjusted WQO. If B is greater than the adjusted WQO and the pollutant was present in the effluent, then a WQBEL is required, because the effluent has reasonable potential to contribute to an exceedance of the 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).

   c. 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, applicable TMDLs, and Basin Plan objectives (among which are MCLs included by reference).

   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.

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

2. ***RPA Data -*** . The RPA was based on effluent monitoring data for January 1998 through August 2005. 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. A hardness value of 261 mg/L, which is an average value of hardness data collected from November 1998 to August 2005, was used to calculate CTR WQO. In the determination of criteria for metals TMDL constituents, the hardness was set at the hardness determined by the TMDL. This is consistent with the preamble to the CTR, contained in federal register Section E.f. *Hardness* (p.31692), 40 CFR Part 131.

   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. On June 5, 2001 letter, the Executive Officer directed the Discharger to begin an interim monitoring program for the duration of 18 months, beginning July 2001. The Discharger collected samples on a monthly basis for all priority pollutants, with the exception of asbestos and 2,3,7,8-TCDD that were sampled semiannually, and reporting the results quarterly to the Regional Board. 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.

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 copper, mercury, cyanide, benzo(a)anthracene, chrysene, dibenzo(a,h)anthracene, and N-nitrosodi-n-propylamine showed the potential to exceed respective CTR objectives, and, therefore, require CTR-based effluent limitations. In addition, Regional Board Staff have determined that tetrachloroethylene and bis(2-ethylhexyl)phthalate showed potential to exceed the Basin Plan's Groundwater Quality Objective, and therefore, require Basin Plan-based effluent limitations. Regional Board Staff also have determined that effluent limitations for lead, cadmium, and zinc are consistent with the *Metal TMDL* implementation procedure.

58. This 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 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.

59. ***Pollutant Minimization Program -*** The Discharger shall be required to develop a Pollutant Minimization Program (PMP), in accordance with Section 2.4.5.1. of the SIP, when there is evidence that the priority pollutant is present in the effluent above an effluent limitation.

60. The City shall propose a plan with a logical sequence of actions to achieve full compliance with the limits in this Order. The first phase of the plan is to investigate the sources of the high levels of contaminants in the collection system. If the sources can be identified, source reduction measures (including, when appropriate, Pollution Minimization Plans) will be instituted. At the time this Order is considered, the City is unsure whether or not all sources contributing to the high contaminant levels can be identified. Therefore, a parallel effort will be made to evaluate the appropriateness of Site Specific Objectives (SSO) and, where appropriate, Use Attainability Analyses (UAA), and modifications to and/or construction of treatment facilities. If it is determined that a SSO or UAA is necessary and appropriate, the City will submit a written request for a SSO study, accompanied by a preliminary commitment to fund the study, to the Regional Board. The Discharger will then develop a workplan and submit it to the Regional Board for approval prior to the initiation of the studies.

INTERIM REQUIREMENTS

61. ***Copper, Mercury, Cyanide, Benzo(a)anthracene, Chrysene, Dibenzo(a,h)anthracene, and Bis(2-ethylhexyl)phthalate -*** Data submitted in previous self-monitoring reports indicated that these constituents have reasonable potential to exceed the CTR criteria and therefore require the limits prescribed in this Order. The LAG WRP may not be able to achieve consistent compliance with the CTR-based final effluent limit for these constituents. The City has the option of conducting studies to obtain the necessary data to develop site-specific objectives (SSOs) for mercury, benzo(a)anthracene, bis(2-ethylhexyl)phthalate, chrysene, and dibenzo(a,h)anthracene for the protection of human health from the consumption of fish and shellfish taken from the receiving waters; or, an SSO for copper for the protection of aquatic life. However, the City should prepare and submit a draft workplan to the Regional Board for review and approval, prior to initiating the study.

62. 40 CFR, Section 131.38(e) provides conditions under which interim effluent limits and compliance schedules may be issued, but the current Basin Plan only allows the inclusion of interim limits and compliance schedules in NPDES permits for effluent limits under special circumstances. The SIP allows inclusion of interim limits in NPDES permits for CTR-based priority pollutants. The CTR provides for a five-year maximum compliance schedule, while the SIP allows for longer, TMDL-based compliance schedule. However, the USEPA has yet to approve the longer compliance schedules. Therefore, this Order includes interim limits and compliance schedules for CTR-based priority pollutants limits for a maximum of five years, when the Discharger has been determined to have problems in meeting the new limits. This Order also includes a reopener to allow the Regional Board to grant TMDL-based compliance schedules if the USEPA approves the longer compliance schedule provisions of the SIP. An interim limit for lead is not applicable because the MEC is less than the proposed final effluent daily maximum limit.

    On January 30, 2003, the Regional Board adopted Resolution No. 2003-001, *Resolution Amending the Water Quality Control Plan for the Los Angeles Region to Incorporate Language Authorizing Compliance Schedules in NPDES Permits*, which allows compliance schedules in NPDES permits for effluent limits that implement new, revised or newly interpreted water quality standards, or for effluent limits that implement TMDLs for new, revised or newly interpreted water quality standards. The permit already contains an interim limit for the bis(2-ethylhexyl)phthalate, a CTR-based limit, so a TSO for compliance with the Basin Plan-based effluent limit is not necessary.

63. In conformance with the CTR and the relevant provisions of SIP Section 2.1, the Discharger has submitted documentation that diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutants entering the POTW. In addition, the Discharger already has in place a source control and pollutant minimization approach through its existing pollutant minimization strategies and through the pretreatment program. The duration of interim requirements established in this Order was developed in coordination with Regional Board staff and the Discharger, and the proposed schedule is as short as practicable. The five-year compliance schedule is based on the maximum allowable compliance schedule. However, the Discharger anticipates it will take longer than five years to achieve the final limits.

CEQA AND NOTIFICATION

64. The action to adopt a NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (Public Resources Code §21100, et. seq.) in accordance with California Water Code §13389.

65. The Regional Board has notified the Discharger and interested agencies and persons of its intent to renew waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

66. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

67. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and is effective 50 days (February 2, 2007) from the date of its adoption because of significant public comment, in accordance with federal law, provided the Regional Administrator, USEPA has no objections.

68. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, California, 95812, within 30 days of adoption of the Order.

IT IS HEREBY ORDERED that the City of Los Angeles, as the owner and operator of the Los Angeles-Glendale Water Reclamation Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

I. DISCHARGE REQUIREMENTS

1. Effluent Limitations

A. Wastes discharged shall be limited to treated municipal and industrial wastewater only, discharged from Serial No. 001 as proposed in the ROWD.

B. The discharge of an effluent with constituents in excess of the following limits is prohibited:

a. Conventional and nonconventional pollutants:

Constituent	Units	Discharge Limitations		
		Monthly Average[7]	Weekly Average[8]	Daily Maximum[9]
Settleable solids	ml/L	0.1	--	0.3
Suspended solids	mg/L	15	40	45
	lbs/day[10]	2,500	6680	7,500
Oil and grease	mg/L	10	--	15
	lbs/day[10]	1,670	--	2,500
$BOD_5 20^0C$	mg/L	20	30	45
	lbs/day[10]	3,340	5000	7,510
Total residual chlorine	mg/L	--	--	0.1[11]

7 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.

8 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.

9 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.

10 The mass emission rate limitations are based on the existing plant design flow rate of 20 mgd, and are calculated as follows: Flow(mgd) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. 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.

11 Determination of compliance with the final effluent limitation 0.10 mg/L for total residual chlorine will be based solely on end of pipe grab samples.

Constituent	Units	Discharge Limitations		
		Monthly Average[7]	Weekly Average[8]	Daily Maximum[9]
Total dissolved solids	mg/L	950	--	--
	lbs/day[10]	158,600	--	--
Chloride	mg/L	190[12]	--	--
	lbs/day[10]	31,710	--	--
Sulfate	mg/L	300	--	--
	lbs/day[10]	50,080	--	--
Fluoride	mg/L	2	--	--
	lbs/day[10]	334	--	--
Detergents (as MBAS)	mg/L	0.5	--	--
	lbs/day[10]	83	--	--
Nitrate + Nitrite (as N)	mg/L	7.2[13]	--	--
Nitrite (as N)	mg/L	0.9[13]	--	--
Nitrate (as N)	mg/L	7.2[13]	--	--
Total ammonia (as N)	mg/L	2.2[13]	--	7.8[13]

12 In accordance with the Resolution 98-027, adopted by the Regional Board on April 13, 1998, the chloride limitation has been increased from 150 to 190 mg/L.

13 This is the waste load allocation (WLA), according to the Nitrogen Compounds TMDL Resolution No. 2003-009, adopted by the Regional Board on July 10, 2003. The WLA serves as the effluent limitation for the discharge. It became effective on March 23, 2004, after the USEPA approved the Nitrogen Compounds TMDL, and after the Regional Board filed the Notice of Decision with the California Resources Agency. Note that the interim effluent limitations contained in the aforementioned resolution would apply to the City's discharge. The interim limits and compliance dates are provided in Section I.1.I.a. – Interim Effluent Limitations of this Order.

b. Toxic pollutants for Discharge No. 001:

CTR #[14]	Constituent	Units	Discharge Limitations	
			Monthly Average[15]	Daily Maximum
4	Cadmium[16]	µg/L	4.6[17,18,19]	9.2[17,18,19]
		lbs/day[20]	0.77[17,18,19,α]	1.5[17,18,19,α]
6	Copper[16, 21]	µg/L	22[22, ★]	40[22, ★]

14 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).

15 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.

16 Concentration expressed as total recoverable

17 This is consistent with the Metals TMDL implementation procedure.

18 This is the **wet weather** waste load allocation (WLA), according to Resolution No. R05-006, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Metals for the Los Angeles River and its Tributaries* (*LA River Metals TMDL*), adopted by the Regional Board on June 2, 2005. The Metals TMDL was approved by the State Board, with the adoption of Resolution No. 2005-0077. On December 9, 2005 and December 22, 2005, respectively, OAL and USEPA approved the *LA River Metals TMDL*. It went into effect on January 11, 2006. According to the LA River Metals TMDL, wet weather is "when the maximum daily flow in the River is greater than 500 cfs."

19 This effluent limitation will not be in effect until January 11, 2011, five years after the Metals TMDL effective date, according to the LA River Metals TMDL Implementation Section.

20 The mass emission rate limitations are based on the existing plant design flow rate of 20 mgd, and are calculated as follows: Flow(mgd x Concentration (µg/L) x 0.00834 (conversion factor) = lbs/day. However, if the design capacity is reduced to achieve NDN process, the mass-based effluent limitation will accordingly be modified upon certification and approval of de-rated 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.

α According to the LA River Metals TMDL, the mass- based limits for cadmium, lead, and zinc do not apply during wet weather.

21 This constituent has reasonable potential to exceed the CTR criteria.

22 This effluent limitation will not be in effect until May 17, 2010, and until that time, the Discharger shall comply with the applicable interim limitations established in Section I.1.I.a. – Interim Effluent Limitations.

★ This is consistent with the SIP and Metals TMDL implementation procedures. The monthly average and daily maximum were derived using the Site-Specific Translators of 0.80 (chronic) and 0.89

CTR #[14]	Constituent	Units	Discharge Limitations	
			Monthly Average[15]	Daily Maximum
		lbs/day[20]	3.7[22]	6.7[22]
7	Lead [16]	µg/L	8.8[17,18,19,23]	22[17,18,19,23]
		lbs/day[20]	1.5[17,18,19,23,α]	3.7[17,18,19,23,α]
8	Mercury [16, 21]	µg/L	0.051[22]	0.13[22]
		lbs/day[20]	0.0085[22]	0.022[22]
13	Zinc[16]	µg/L	217[17,18,19]	288[17,18,19]
		lbs/day[20]	36[17,18,19,α]	48[17,18,19,α]
14	Cyanide[21]	µg/L	3.4[22]	9.6[22]
		lbs/day[20]	0.57[22]	1.6[22]
38	Tetrachloroethylene[21]	µg/L	5	No limit
		lbs/day[20]	0.83	No limit
60	Benzo (a) Anthracene[21]	µg/L	0.049[22]	0.12[22]
		lbs/day[20]	0.0082[22]	0.02[22]
68	Bis(2-ethylhexyl)phthalate[21]	µg/L	4[22]	16[22]
		lbs/day[20]	0.67[22]	2.7[22]
73	Chrysene[21]	µg/L	0.049[22]	0.11[22]
		lbs/day[20]	0.0082[22]	0.018[22]
74	Dibenzo(a,h)anthracene[21]	µg/L	0.049[22]	0.11[22]
		lbs/day[20]	0.0082[22]	0.018[22]
97	N-Nitrosodi-n-Propylamine[21]	µg/L	1.4	3.3
		lbs/day[20]	0.23	0.55

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

D. The effluent temperature shall not exceed 86°F.

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

F. In accordance with 40 CFR, Parts 133.102(a)(3) and 133.102(b)(3), for BOD and total suspended solids, respectively, the monthly average percent removal

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(acute), respectively. Detailed discussions and calculations are found in the Fact Sheet, section VII.17.D.

[23] This is the **dry weather** waste load allocation (WLA), according to Resolution No. R05-006, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Metals for the Los Angeles River and its Tributaries* (*LA River Metals TMDL*), adopted by the Regional Board on June 2, 2005. The Metals TMDL was approved by the State Board, with the adoption of Resolution No. 2005-0077. On December 9, 2005 and December 22, 2005, respectively, OAL and USEPA approved the *LA River Metals TMDL*. It went into effect on January 11, 2006. According to the LA River Metals TMDL, dry weather is "when the maximum daily flow in the River is less than 500 cfs."

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 monthly average values of the raw wastewater influent pollutant concentrations to the facility and the monthly average values of the effluent pollutant concentrations for a given time period.

G. The wastes discharged to water courses shall at all times be adequately disinfected. For the purpose of this requirement, the wastes shall be considered adequately disinfected if the median number of coliform organisms at some point in the treatment process does not exceed 2.2 per 100 milliliters, and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last seven (7) days for which analysis has been completed. Samples shall be collected at a time when wastewater flow and characteristics are most demanding on treatment facilities and the disinfection processes.

H. 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 treated 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.

I. Interim Effluent Limitations

a. The Discharger shall comply immediately with nitrate+nitrite (as N), and total ammonia (as N) with the interim effluent limitations specified in the Table below until September 30, 2007. Thereafter the Discharger shall comply with the final limitations specified in Section I.1.B.a. of this Order.

b. The Discharger shall comply immediately with copper, mercury, cyanide, benzo(a)anthracene, bis(2-ethylhexyl)phthalate, chrysene, and dibenzo(a,h)anthracene with the interim effluent limitations specified in the Table below until May 17, 2010. Thereafter, the Discharger shall comply with the final limitations specified in Section I.1.B.b. of this Order:

Constituent	Units	Monthly Average	Daily Maximum
Nitrate + Nitrite (as N)	mg/L	8.0[24]	--
Nitrite (as N)	mg/L	No limit[25]	No limit[25]
Nitrate (as N)	mg/L	No limit[25]	No limit[25]
Total ammonia (as N)	mg/L	18.8[24]	24.2[24]
Copper	µg/L	32[26]	--
Mercury	µg/L	1.0[26]	--
Cyanide	µg/L	47[26]	--
Benzo(a)anthracene	µg/L	0.27[26]	--
Bis(2-ethylhexyl)phthalate	µg/L	24[26]	--
Chrysene	µg/L	0.17[26]	--
Dibenzo(a,h)anthracene	µg/L	0.15[26]	--

c. The Discharger shall submit quarterly progress reports (January 15, April 15, July 15 and October 15) to describe the progress of studies and/or actions undertaken to reduce copper, mercury, cyanide, chrysene, and dibenzo(a,h)anthracene in the effluent, and to achieve compliance with the limits in this Order by the above-mentioned deadline. The first progress report shall be received at the Regional board by April 15, 2007.

[24] Interim limit were based on the revised interim effluent limits, amendment to the Nitrogen TMDL, Resolution No. 2003-016, adopted by the Regional Board on December 4, 2003.

[25] Effluent limits for individual compounds Nitrate (as N) and Nitrite (as N) are not required during the Interim period according to page 9 of the Nitrogen TMDL Resolution No. 2003-009. Similar language was reflected in the amended interim effluent limitation resolution stated above.

[26] The interim limit was set as the maximum effluent concentration (MEC).

J. To protect underlying ground water basins, pollutants shall not be present in the wastes discharged at concentrations that pose a threat to ground water quality.

K. Acute Toxicity Limitation:

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

b. If either of the above requirements (I.1.K.a.i or I.1.K.a.ii) is not met, the Discharger shall conduct six additional tests over a six-week period. The Discharger shall ensure that results of a failing acute toxicity test is received by the Discharger within 24 hours of completion of the test and the additional tests shall begin within 3 business days of receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.

c. If the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately implement Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.

d. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program (MRP) No. 5675.

L. Chronic Toxicity Limitation and Requirements:

a. The chronic toxicity of the effluent shall be expressed and reported in toxic units, where:

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

b. Chronic toxicity of 100% effluent shall not exceed a monthly median trigger of 1.0 TU_c or a daily maximum of 1.0 TU_c in a critical life stage test.

c. If the chronic toxicity of the effluent exceeds the monthly median trigger of 1.0 TU_c, the Discharger shall immediately implement accelerated chronic toxicity testing according to MRP No. 5675, Section VI.4.B.d. If any three out of the initial test and the six accelerated tests results exceed 1.0 TU_c trigger, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan, as specified in the following section of this Order (Section I.1.M.).

d. The Discharger shall conduct chronic toxicity monitoring as specified in MRP No. 5675.

M. Preparation of an Initial Investigation TRE Workplan

The Discharger shall submit a detailed copy of the Discharger's initial investigation TRE workplan to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. The Discharger shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance, or most current version. At a minimum, the TRE Work Plan must contain the provisions in Attachment C. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

a. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;

b. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility; and,

c. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor). See MRP Section IV.4.D. for guidance manuals.

2. **Receiving Water Limitations for Surface Waters**

A. For waters designated with a warm freshwater habitat (WARM) beneficial use, the temperature of the receiving water at any time or place and within any given 24-hour period shall not be altered by more than 5^0F above the natural temperature (or above 70^0F if the ambient receiving water temperature is less than 60^0F) due to the discharge of effluent at the receiving water station located downstream of the discharge. Natural conditions shall be determined on a case-by-case basis.

B. The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of wastes discharged. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of wastes discharged. Natural conditions shall be determined on a case-by-case basis.

C. The dissolved oxygen in the receiving water shall not be depressed below 5 mg/L as a result of the wastes discharged.

D. The fecal coliform concentration in the receiving water shall not exceed the following, as a result of wastes discharged:

a. Geometric Mean Limits

i. E.coli density shall not exceed 126/100 mL.

ii. Fecal coliform density shall not exceed 200/100 mL.

b. Single Sample Limits

i. E.coli density shall not exceed 235/100 mL.

ii. Fecal coliform density shall not exceed 400/100 mL.

E. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attributable to controllable water quality factors shall not exceed the following limits, as a result of wastes discharged:

a. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%, and

b. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

F. The wastes discharged shall not produce concentrations of toxic substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life.

G. The wastes discharged shall not cause concentrations of contaminants to occur at levels that are harmful to human health in waters which are existing or potential sources of drinking water.

H. The concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect beneficial uses as a result of the wastes discharged.

I. The wastes discharged shall not contain substances that result in increases in BOD, which adversely affect the beneficial uses of the receiving waters.

J. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

K. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.

L. The wastes discharged shall not alter the natural taste, odor, and color of fish, shellfish, or other surface water resources used for human consumption.

M. The wastes discharged shall not result in problems due to breeding of mosquitoes, gnats, black flies, midges, or other pests.

N. The wastes discharged shall not result in visible floating particulates, foams, and oil and grease in the receiving waters.

O. The wastes discharged shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; nor cause aesthetically undesirable discoloration of the receiving waters.

P. The wastes discharged shall not contain any individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses of the receiving waters. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life as a result of the wastes discharged.

Q. Acute Toxicity Receiving Water Quality Objective

a. There shall be no acute toxicity in ambient waters as a result of wastes discharged.

b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.

c. The acute toxicity of the receiving water, at the station R-5 located immediately downstream of the discharge, including mixing zone shall be such that: (i) the average survival in the undiluted receiving water for any three (3) consecutive 96-hour static, static-renewal*, or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70% survival.

* Static-renewal bioassay tests may be used, as allowed by the most current USEPA test method, for measuring acute toxicity.

R. Chronic Toxicity Receiving Water Quality Objective

a. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.

b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.

c. If the chronic toxicity in the receiving water at the monitoring station immediately downstream of the discharge, exceeds the monthly median of 1.0 TU_c trigger in a critical life stage test and the toxicity cannot be attributed to upstream toxicity, as assessed by the Discharger, then the Discharger shall immediately implement an accelerated chronic toxicity testing according to Monitoring and Reporting Program CI 5675, section VI.4.B.d. If two of the six tests exceed a monthly median of 1.0 TU_c trigger, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan.

d. If the chronic toxicity of the receiving water upstream of the discharge is greater than the downstream and the TUc of the effluent chronic toxicity test is less than or equal to a monthly median of 1 TU_c trigger, then accelerated monitoring need not be implemented.

II. SLUDGE REQUIREMENTS

1. The Discharger shall comply with the requirements of 40 CFR, Part 503, in general, and in particular the requirements in Attachment B of this Order, [*Biosolids Use and Disposal Requirements*]. These requirements are enforceable by the USEPA.

2. The Discharger shall comply, if applicable, with the requirements in State issued statewide general Waste Discharge Requirements (WDRs) Order No. 2000-10-DWQ, tiltled “General waste Discharge Requirements for the Discharge of Biosolids to Land for use as a soil Amendment in Agricultural, Silvicultural and Horticultural and Land Reclamation Activities” adopted in August 2000.

3. The Discharger shall comply, if applicable, with WDRs issued by other Regional Boards to which jurisdiction the Los Angles-Glendale WRP’s biosolids are transported and applied.

4. The Discharger shall furnish this Regional Board with a copy of any report submitted to USEPA, State Board or other regional board with respect to municipal sludge or biosolids.

III. PRETREATMENT REQUIREMENTS

1. This Order includes the Discharger’s Pretreatment Program as previously submitted to this Regional Board. Any change to the Program shall be reported to the Regional Board in writing and shall not become effective until approved by the Executive Officer in accordance with procedures established in 40 CFR, 403.18.

2. The Discharger shall evaluate whether its pretreatment local limits are adequate to meet the requirements of this Order. The Los Angeles-Glendale, and Tillman WRPs are interconnected to the Hyperion Treatment Plant by design to provide hydraulic relief

to the collection system and to provide Title 22 filtered and disinfected recycled water to the community. The Burbank WRP (BWRP) is connected to this system hydraulically by contract between the City of Los Angeles and the City of Burbank. Solids and flows above capacity are allowed to be discharged to the collection system by the LAGWRP and DCTWRP by design, and by the BWRP contract. Because BWRP is a facility of a contract agency, the BWRP develops and executes an appropriate local limits program within its jurisdictional boundaries, for which it will be solely responsible for its local limits, evaluation of local limits for the LAG WRP cannot be done without consideration of the conditions at the Burbank and Tillman WRPs. Within 120 days of the effective date of this Order, the Discharger shall submit its plan and schedule for updating the local limits, for approval of the Executive Officer.

3. The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Federal Clean Water Act with timely, appropriate, and effective enforcement actions. The Discharger shall require industrial users to comply with Federal Categorical Standards and shall initiate enforcement actions against those users who do not comply with the standards. The Discharger shall require industrial users subject to the Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.

4. The Discharger shall perform the pretreatment functions as required in Federal Regulations 40 CFR, Part 403 including, but not limited to:

   A. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);

   B. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;

   C. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and

   D. Provide the requisite funding of personnel to implement the Pretreatment Program as provided in 40 CFR 403.8(f)(3).

5. The Discharger shall submit semiannual and annual reports to the Regional Board, with copies to the State Board, and USEPA Region 9, describing the Discharger's pretreatment activities over the period. The annual and semiannual reports shall contain, but not be limited to, the information required in the attached *Pretreatment Reporting Requirements* (Attachment P), or an approved revised version thereof. If the Discharger is not in compliance with any conditions or requirements of this Order, the Discharger shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements.

6. The Discharger shall be responsible and liable for the performance of all control authority pretreatment requirements contained in 40 CFR, Part 403, including subsequent regulatory revisions thereof. Where Part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within six months from the effective date of this Order or the effective

date of Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines, and other remedies by the Regional Board, USEPA, or other appropriate parties, as provided in the Federal Clean Water Act. The Regional Board or USEPA may initiate enforcement action against an industrial user for noncompliance with acceptable standards and requirements as provided in the Federal Clean Water Act and/or the California Water Code.

IV. REQUIREMENTS AND PROVISIONS

1. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.

2. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and all federal regulations established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 316, 403 and 405 of the Federal Clean Water Act and amendments thereto.

3. This Order includes the attached "Standard Provisions and General Monitoring and Reporting Requirements" (Attachment N). If there is any conflict between provisions stated hereinbefore and the attached "Standard Provisions", those provisions stated herein prevail.

4. This Order includes the attached Monitoring and Reporting Program (Attachment T). If there is any conflict between provisions stated in the Monitoring and Reporting Program and the "Standard Provisions" (Attachment N), those provisions stated in the Monitoring and Reporting Program prevail.

5. Compliance Determination

   A. Compliance with single constituent effluent limitation – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement III. 1. of MRP), then the Discharger is out of compliance.

   B. Compliance with monthly average limitations - In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:

      1. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the monthly average limit for that constituent, the Discharger has demonstrated compliance with the monthly average limit for that month.

      2. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the monthly average limit for any constituent, the Discharger shall collect four additional samples at

approximately equal intervals. All five analytical results shall be reported in the monitoring report for that month, or the subsequent month.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement III. 1. of MRP), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Reporting Requirement III. 4.B. of *M&RP*), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

3. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.

4. If only one sample was obtained for the month or more than a monthly period and the result exceeds the monthly average, then the Discharger is in violation of the monthly average limit.

C. Compliance with effluent limitations expressed as a sum of several constituents – If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

D. Compliance with effluent limitations expressed as a median – in determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

a. If the number of measurements (n) is odd, then the median will be calculated as = $X_{(n+1)/2}$, or

b. If the number of measurements (n) is even, then the median will be calculated as = $[X_{n/2} + X_{(n/2)+1}]/2$, i.e. the midpoint between the n/2 and n/2+1 data points.

Consecutive exceedances of the coliform 7-day median effluent limitation, which take place within a calendar week and result from a single operational upset, shall be treated as a single violation.

E. Compliance with the receiving water temperature limitation – If the receiving water temperature, downstream of the discharge, exceeds 80 °F as a result of:

i. high temperature in the ambient air, or

ii. high temperature in the receiving water upstream of the discharge,

then the exceedance shall not be considered a violation.

6. In calculating mass emission rates from the monthly average concentrations, for compliance purpose, consider constituents reported as ND or DNQ to have concentrations equal to zero for the calculation of the monthly average concentration.

7. **Best Management Practices and Pollution Prevention**

A. Spill Contingency Plan (SPC)

The Discharger shall maintain a SCP for the LAG WRP and its sanitary sewage collection system in an up-to-date condition and shall amend the SCP whenever there is a change (e.g. in the design, construction, operation, or maintenance of the sewage system or sewage facilities) which materially affects the potential for spills. The Discharger shall review and amend the SCP as appropriate after each spill from the LAG WRP or in the service area of the Facility. Upon request of the Regional Water Board, the Discharge shall submit the SCP and any amendments to the Regional Water Board. The Discharger shall ensure that the up-to-date SCP is readily available to the sewage system personnel at all times and that the sewage system personnel are familiar with it.

B. Pollutant Minimization Program (PMP)

The Discharger shall be required to develop a PMP as further described below 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 required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

A. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML; or,

B. The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL.

The goal of the PMP shall to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board

may consider cost-effectiveness when establishing the requirements of a PMP. The completion of a Pollution Prevention Plan, if required pursuant to CWC Section 13263.3(d), shall be considered to fulfill the PMP requirements.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

a. An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

b. Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;

c. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;

d. Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and,

e. An annual status report that shall be sent to the Regional Water Board including:

   i. All PMP monitoring results for the previous year;

   ii. A list of potential sources of the reportable pollutant(s);

   iii. A summary of all actions undertaken pursuant to the control strategy; and,

   iv. A description of actions to be taken in the following year.

8. **Construction, Operation and Maintenance Specification**

A. Wastewater treatment facilities subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Chapter 3, Subchapter 14, Title 23 of the California Code of Regulations (Section 13625 of the California Water Code).

B. The Discharger shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, and other physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the discharger shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power.

9. **Spill Reporting Requirements**

A. The Discharger shall develop and maintain a record of all spills, overflows or bypasses of raw or partially treated sewage from its collection system or treatment plant. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report. The reports shall provide:

a. the date and time of each spill, overflow or bypass;

b. the location of each spill, overflow or bypass;

c. the estimated volume of each spill, overflow or bypass including gross volume, amount recovered and amount not recovered;

d. the cause of each spill, overflow or bypass;

e. whether each spill, overflow or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;

f. mitigation measures implemented; and,

g. corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.

B. For certain spills, overflows and bypasses, the Discharger shall make reports and conduct monitoring as required below:

a. For any spills or overflows of any volume, discharged where they are, or will probably be discharged, to waters of the State, the Discharger shall immediately notify the local health agency in accordance with the California Health and Safety Code section 5411.5.

b. For spills, overflows or bypasses of any volume that flowed to receiving waters or entered a shallow ground water aquifer or has public exposure, the Discharger shall report such spills to the Regional Water Board, by telephone or electronically as soon as possible but not later than 24 hours of knowledge of the incident. The following information shall be included in the report: location; date and time of spill; volume and nature of the spill; cause(s) of the spill; mitigation measures implemented; and corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.

c. For any spills or overflows of 1000 gallons or more discharged where they are, or probably be discharged to waters of the State, the Discharger shall immediately notify the State Office of Emergency Services pursuant to Water Code section 13271.

d. For spills, overflows or bypasses of any volume that reach receiving waters, the Discharger shall obtain and analyze grab samples for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible and safe) in order to define the geographical extent of impact of the spill. This monitoring shall be on a daily basis from time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or cessation of monitoring is authorized by the County Department of Health Services.

e. For spills, overflows or bypasses of any volume that flowed to receiving waters or entered a shallow ground water aquifer, and all spills, overflows and bypasses of 1,000 gallons or more, the Discharger shall analyze a grab sample of the spill or overflow for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern depending on the area and nature of spills or overflows if feasible, accessible and safe.

f. The Regional Water Board notification shall be followed by a written preliminary report five working days after verbal notification of the incident. Within 30 days after submitting preliminary report, the Discharger shall submit the final written report to this Regional Water Board. (A copy of the final written report, for a given incident, already submitted pursuant to a Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies, may be submitted to the Regional Board to satisfy this requirement.) The written report shall document the information required in subparagraphs (b) and (d) above, monitoring results and any other information required in provisions of the Standard Provisions document. An extension for submittal of the final written report can be granted by the Executive Officer for just cause.

In addition, Regional Board expects that the municipal departments that have responsibilities to implement: (i) this NPDES permit, including pretreatment program, (ii) a MS4 NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements and (iii) the SSO WDR will coordinate their compliance activities for consistency and efficiency.

Due to the fact that Hyperion Service Area sewer systems includes the inland plants of Tillman and Los Angeles-Glendale and their sewer systems, the spill requirements in present permit are consistent with the requirements in the Hyperion NPDES permit (CA0109991). The Permittee has the flexibility in managing its response to sanitary sewer overflows for the entire service area as long as the compliance with the requirements of the NPDES permits (pertaining to the Hyperion Service Area) provisions is assured.

10. The Clean Water Act prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under a NPDES permit. (33

U.S.C. §§1311, 1342). The State Board adopted General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, (WQ Order No. 2006-0003) on May 2, 2006, to provide a consistent, statewide regulatory approach to address Sanitary Sewer Overflows (SSOs). The WDR requires public agencies that own or operate sanitary sewer systems to develop and implement sewer system management plans and report all SSOs to the State Water Board's online SSO database.

The requirements contained in this Order in Sections IV.7.2, IV.8, and IV.9 are intended to be consistent with the requirements of the SSO WDR. The Regional Board recognizes that there may be some overlap between the NPDES permit provisions and SSO WDR requirements. The requirements of the SSO WDR are considered the minimum thresholds (see Finding 11 of WQ Order No. 2006-0003). The Regional Board will accept the documentation prepared by the Permittees under the SSO WDR for compliance purposes, as satisfying the requirements in Sections IV.G.2, IV.H, and IV.I, provided any more specific or stringent provisions enumerated in this Order, have also been addressed

11. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.

12. The Discharger shall protect the facility from inundation, which could occur as a result of a flood having a predicted frequency of once in 100 years.

13. The Discharger shall comply with all applicable water quality objectives for the receiving waters of the Los Angeles River, including the toxic criteria in 40 CFR, Part 131.36, as specified in this permit.

14. The Discharger shall comply with the requirements of the State Board's General NPDES Permit No. CAS000001 and *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities* (Order No. 97-03-DWQ) by continuing to implement a SWPPP and conducting the required monitoring.

15. The Discharger may plan to conduct studies to obtain data in support of developing site-specific objectives for mercury, tetrachloroethylene, benzo(a)anthracene, bis(2-ethylhexyl)phthalate, chrysene, dibenzo(a,h)anthracene and N-nitrosodi-n-propylamine for human health from the consumption of fish and shellfish taken from the receiving waters, and copper, lead, and cyanide for the aquatic life. The Discharger shall submit to Regional Board staff a detailed work plan for these studies. The work plan shall provide a schedule consistent with Effluent Limitation I.1.I.a for development and adoption of site-specific objectives for these constituents.

16. Within 60 days following the effective date of this Order, the Discharger shall submit, to the Regional Board for EO approval, a workplan for a proposed groundwater monitoring well system.

V. REOPENERS AND MODIFICATIONS

1. This Order may be reopened and modified, in accordance with SIP section 2.2.2.A to incorporate the results of revised reasonable potential analyses to be conducted upon receipt of additional data from the interim monitoring program.

2. This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 and 124 to include requirements for the implementation of the watershed protection management approach.

3. The Board may modify, or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

4. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR, Parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the District for an Order modification, revocation and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

5. This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 to 124, to include new MLs.

6. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective, or the adoption of a TMDL for the Los Angeles River Watershed.

7. This Order may be reopened and modified, to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.

8. This Order may be reopened and modified to revise the chronic toxicity effluent limitation, to the extent necessary, to be consistent with State Board precedential decisions, new policies, new laws, or new regulations.

9. This Order may be reopened to modify final effluent limits, if at the conclusion of necessary studies conducted by the Discharger, the Regional Board determines that dilution credits, attenuation factors, water effects ratio, or metal translators are warranted.

VI. EXPIRATION DATE

This Order expires on November 13, 2011.

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

VII. RESCISSION

Order No. 98-047, adopted by this Regional Board on June 15, 1998, is hereby rescinded, except for enforcement purposes. This rescission is dependent upon and relative to the issuance and enforceability of this Order. To the extent any provisions, limitations, or requirements set forth in this Order that supercede analogous provisions, limitations, or requirements in Order No. 98-047, are stayed or deemed to be unenforceable, the relevant provisions, limitations, or requirements of Order 98-047 shall remain enforceable.

I, Jonathan S. Bishop, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 14, 2006.

for David A. Bacharowski, AEO
Jonathan S. Bishop
Executive Officer

/RBM

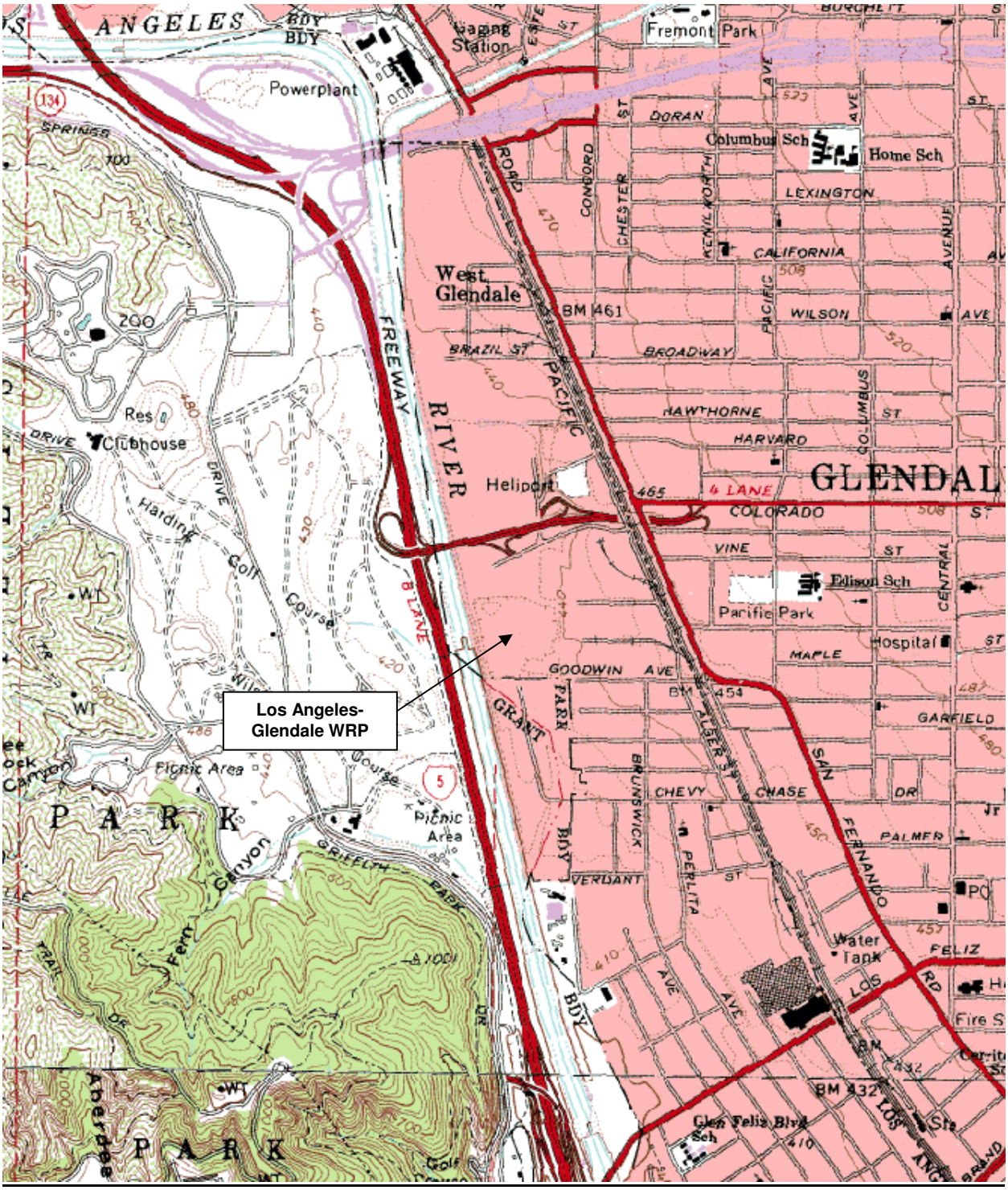

FIGURE 1 – Location of Los Angles-Glendale WRP

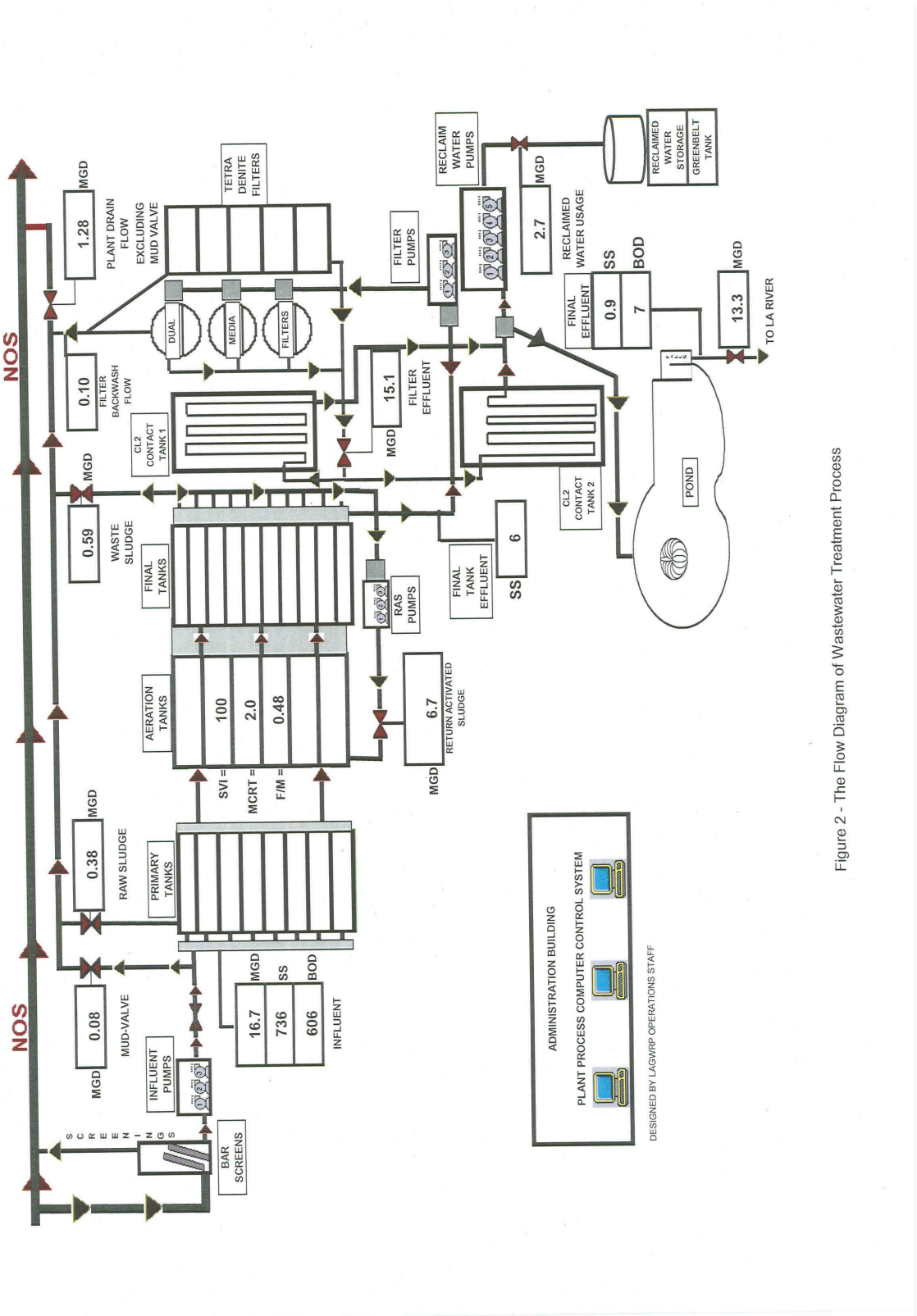

Figure 2 - The Flow Diagram of Wastewater Treatment Process

FIGURE 2 – Schematic of Wastewater Flow

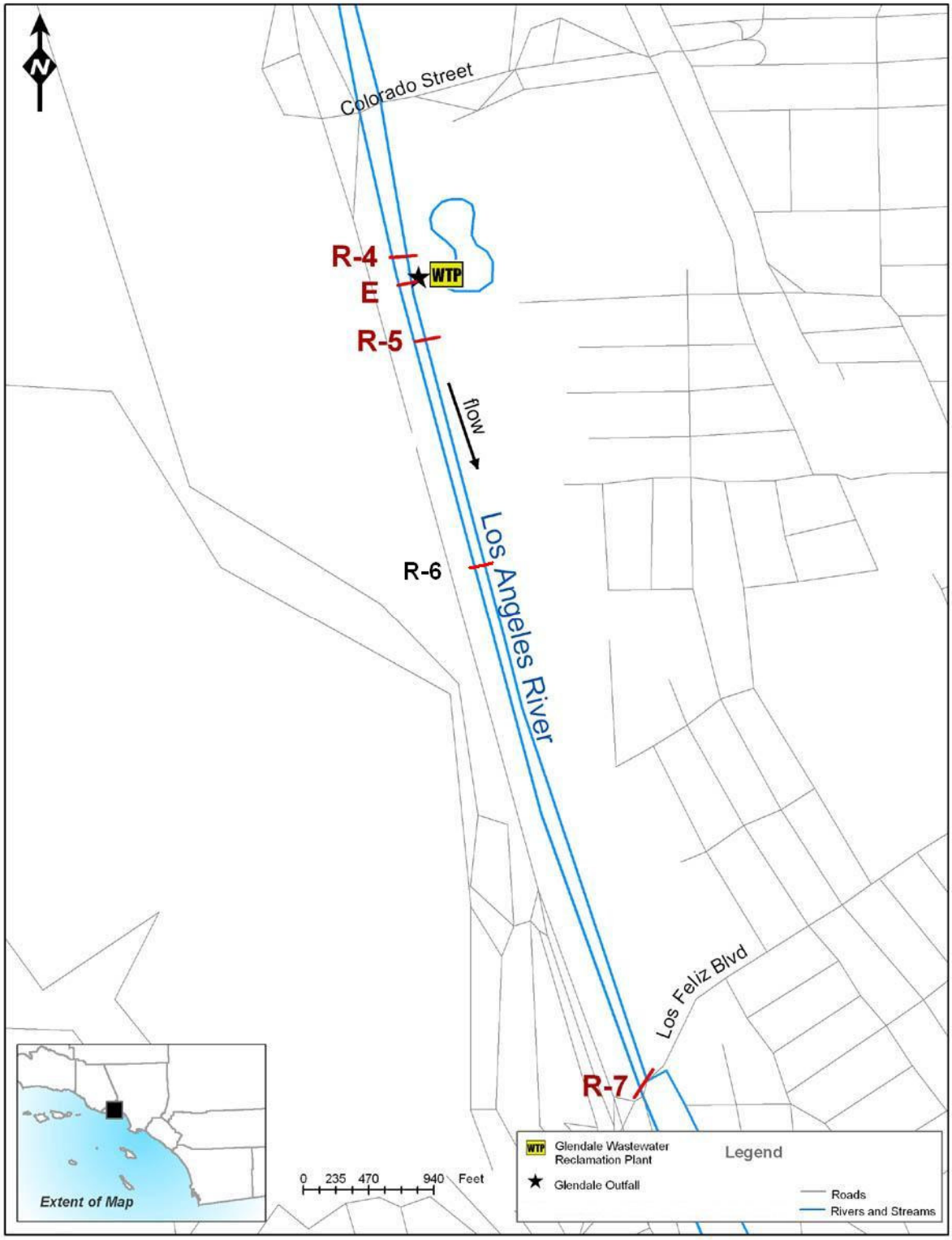

Figure 3 – Receiving Water Quality Station Map