

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

ORDER NO. 98-046

NPDES NO. CA0056227

**WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF LOS ANGELES
(Donald C. Tillman Water Reclamation Plant)**

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

Regulation of Discharge

1. The City of Los Angeles (hereafter City or Discharger) discharges waste from the Donald C. Tillman Water Reclamation Plant (hereafter Tillman Plant or Plant) under Waste Discharge Requirements (WDRs) contained in Order No. 91-102 adopted by this Regional Board on September 9, 1991 and amended on April 13, 1998 to incorporate new chloride limits. This Order serves as the National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0056227).
2. The City has filed a report of Waste Discharge and has applied for renewal of its waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permit.
3. The Regional Board is in the process of implementing a Watershed Management Approach to address water quality protection in the Los Angeles River watershed. Accordingly, the Regional Board is reviewing the WDRs and NPDES permits for the facilities that discharge wastes to the Upper Los Angeles River (including the Tillman Plant).
4. The City maintains and operates the Hyperion Service Area (HSA) which collects, treats, and processes municipal wastewater from domestic, commercial, and industrial sources from the entire city (except the Terminal Island Service Area surrounding the Los Angeles Harbor area) and from a number of cities and other agencies under contractual agreements. There are approximately 4 million people living in the HSA with approximately 1 million people served by the Tillman Plant.

The Tillman Plant is one of the two upstream water reclamation plants in the HSA. The other upstream plant is the Los Angeles/Glendale Water Reclamation Plant.

May 14, 1998
June 1, 1998
Revised June 15, 1998

5. The Tillman Plant, located at 6100 Woodley Avenue, Van Nuys, California, is operated by the City's Department of Public Works, Bureau of Sanitation (see Attachment 1 - Location Map), and consists of two identical treatment trains (Phases I and II), each with a dry weather average design capacity of 40 million gallons per day (mgd).
6. The use of reclaimed water from the Tillman Plant is regulated under Water Reclamation Requirements contained in Order Nos. 97-072 and 86-039. Current uses include maintaining flows in the Japanese Garden Lake, Lake Balboa, and the Wildlife Lake in the Sepulveda Basin. Other options as approved include water truck delivery for landscape irrigation, street cleaning, graffiti removal, and construction-related dust control.
7. On September 18, 1995, the Regional Board adopted Water Reclamation Requirements (Order No. 95-133) and Monitoring and Reporting Program (CI 7599) for the East Valley Water Recycling Project Phase-1A Demonstration (EWRP-1A). This project would divert tertiary treated reclaimed water from the Tillman Plant to the Hansen Spreading Grounds for ground water recharge of the San Fernando Basin. A virus study monitoring program must be completed prior to initiating ground water recharge with reclaimed water. The virus study is to evaluate the virus inactivation capability of the Hardinge Automatic Backwash Traveling Bridge Filters (Hardinge Filters). The City has to complete the sampling and testing protocols and the study to comply with the requirements of the State of California Department of Health Services (Drinking Water Field Operations Branch).
8. The U.S. Environmental Protection Agency (USEPA) and the Regional Board have classified the discharge from the Tillman Plant as a major discharge.

Description of the Facility

9. Phase I of the Tillman Plant start-up began in June 1984, with all effluent from the Hardinge-type, rapid sand filters being returned to the Additional Valley Outfall Relief Sewer (AVORS). In 1985, the Plant actually started discharging to the Los Angeles River.

Phase II, an integral part of the City's Wastewater Facilities Plan, was constructed in compliance with Cease and Desist Order (CDO) No. 86-002, issued by this Regional Board to the City in January 1986, following numerous incidents of dry weather overflows of untreated sewage to Ballona Creek from the Jackson Avenue Overflow Structure. The CDO required that the City shall operate both Phases I and II of the Tillman Plant at a dry weather average treatment capacity of 80 mgd by September 15, 1991.

10. When the CDO was issued in 1986, sewage flows to the Tillman Plant averaged 80 mgd. Hydrographs from October 1989 and June 1990 showed an average flow of 63.5 mgd, representing a 20 percent reduction when compared with 1986 data. Water conservation measures have impacted sewage flows with the average flows at approximately 60 mgd since 1990. Therefore, the Tillman Plant has the capacity but does not treat 80 mgd.
11. Sewage enters the Tillman Plant via both AVORS and the East Valley Interceptor Sewer (EVIS) from the communities of Chatsworth, Canoga Park, West Hills, Woodland Hills, Northridge, Granada Hills, and Van Nuys, and from the City of San Fernando, the Las Virgenes Municipal Water District, and the Triunfo Canyon Sanitation District under contractual agreements.
12. Treatment at the Tillman Plant consists of grit removal, screening, flow equalization, primary sedimentation, activated sludge biological treatment with fine pore aeration, secondary clarification, coagulation, mixed dual media filtration (Hardinge Filters), disinfection by chlorination, and dechlorination (see Attachment 2 for the plant flow diagram).
13. Wastestreams from the Plant are returned to the collection system for ultimate treatment and processing at the Hyperion Treatment Plant. Wastestreams returned to the sewer consist of grit, primary and secondary sludge and skimmings, and filter backwash (approximately 10 mgd).

Discharge Quality

14. In 1997, the average annual removal of BOD and total suspended solids was 99% and 96%, respectively. The average reclaimed water flow was 56 mgd.
15. The characteristics of the treated wastewater discharged into the Los Angeles River in 1997 were as follows:

<u>Constituent</u>	<u>Unit</u>	<u>Annual Average</u>	<u>Minimum</u>	<u>Maximum</u>
Flow	mgd	56.1	42.6	84.9
pH	pH units	7.1	6.9	7.2
Temperature	°F	77	69	86
BOD ₅ 20°C	mg/L	9.0	8	11
Suspended solids	mg/L	2.0	2.0	3.0
Settleable solids	ml/L	<0.1	—	0.2
Total dissolved solids	mg/L	475	402	528
Turbidity	NTU	1.2	1.0	2.0
Total chlorine residual	mg/L	<0.01	—	—
Sulfate	mg/L	101	72	122
Chloride	mg/L	107	81	124
Total coliform	CFU/100ml	<1	<1	18
Oil and grease	mg/L	1.0	ND	1.0
Ammonia-N	mg/L	18	15.3	20.4
Nitrate-N	mg/L	2.0	0.7	5.9
Nitrite-N	mg/L	0.8	0.4	0.9
MBAS	mg/L	0.2	0.1	0.6

Tillman Plant Discharge Outfalls and the Los Angeles River

16. Tillman effluent not diverted for reclaimed uses is discharged to the upper Los Angeles River, a water of the United States, at a point 878 feet downstream of the Sepulveda Dam Spillway (Discharge Serial No. 008: Latitude 34° 09' 54", Longitude 118° 28' 15"), above the estuary (see Attachment 1 - Discharge Outfalls).
17. The 100-year flood water surface elevation under the "U.S. Corps of Engineers Modified Spillway Gate Operating Plan" for the Sepulveda Basin is 714.4 feet. The City's Department of Public Works in 1994 completed construction of a berm around the Tillman Plant to elevation 715 feet. The City also completed construction in 1993 of Discharge Serial No. 008, downstream of the Sepulveda Dam and downstream of Discharge Serial No. 001, which was formerly used as the discharge outfall for the Tillman Plant prior to the use of Discharge Serial No. 008. Discharge Serial No. 001 is now inactive but is still in place. The berm and new outfall (Discharge Serial No. 008) were measures necessary to protect the Tillman Plant from flood conditions.
18. The City is currently using reclaimed water to maintain the Japanese Garden, the recreation lake (Lake Balboa), and the Wildlife Lake. The wildlife and recreation lakes are operated and maintained by the City's Department of Recreation and Parks. The Department of Recreation and Parks has developed management plans for these lakes. These plans discuss measures to be implemented in the operation, maintenance, and monitoring of the lakes.

19. The Department of Recreation and Parks has used up to 17 mgd of reclaimed water in the 27.5 acre Lake Balboa. The reclaimed water is discharged from the Tillman Plant to the lake at southeast corner of Victory and Balboa Boulevards, Los Angeles, (Discharge Serial No. 002: Latitude 34° 10' 38", Longitude 118° 28' 20"). The reclaimed water flows through the lake and eventually discharges through weirs, spillways and a bottom drain to three outfalls: at Bull Creek (Lake Discharge Serial No. 004), Hayvenhurst Channel (Lake Discharge Serial No. 005), and Los Angeles River (Lake Discharge Serial No. 006). Bull Creek and Hayvenhurst Channel are tributaries to the Los Angeles River above the estuary (see Attachment 3 - Schematic Flow Diagram).
20. The Department of Recreation and Parks uses approximately 5 mgd of reclaimed water for the Wildlife Lake and approximately 2 mgd in Haskell Flood Control Channel during September through May. The reclaimed water flows by gravity to the Wildlife Lake located northeast of Burbank Boulevard and Woodley Avenue (Discharge Serial No. 003: Latitude 34° 10' 38", Longitude 118° 28' 20"). The reclaimed water flows through the 10 acre Wildlife Lake and is discharged to the Haskell Flood Control Channel (Lake Discharge Serial No. 007), thence to the Los Angeles River, above the estuary (see Attachment 3 - Schematic Flow Diagram).

During the summer months, the Wildlife Lake may be drained (for maintenance and to minimize nuisance resulting from mosquito breeding), and discharge of reclaimed water to Haskell Flood Control Channel will be increased up to 5 mgd.

21. Storm water in the Tillman Plant is collected by a storm drain with the initial flush discharged to the AVORS sewer for treatment. After collection of the initial flush, stormwater is discharged to the Los Angeles River.

Watershed Approach

22. This Regional Board has implemented a Watershed Management Approach to address water quality protection in the Los Angeles Region. The objective is to provide a comprehensive and integrated strategy resulting in water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically-defined drainage basin or watershed. The Management Approach emphasizes cooperative relationships between regulatory agencies, regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available. This Order fosters the implementation of this approach by protecting beneficial uses in the watershed and requiring the City to participate in the implementation of a regional monitoring program.

23. Pursuant to this Regional Board's watershed initiative framework, the Los Angeles River Watershed Management Area is the targeted watershed for fiscal years 1997-1999. The Los Angeles River watershed encompasses an area of about 825 square miles. Of those, approximately 324 square miles are covered by forest and open space land within the Angeles National Forest, the Santa Monica Mountains, the Verdugo Mountains and Griffith Park in the Upper watershed. The rest of the watershed is highly developed. The urban area in the upper watershed consists mostly of residential and commercial areas, while the area in the lower watershed consists of industrial, residential and commercial areas.

Waste Discharge Requirements and their Bases

Basin Plan

24. On June 13, 1994, this Regional Board adopted a revised *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains beneficial uses and water quality objectives for the Los Angeles River.

Beneficial Uses

25. The beneficial uses of the receiving water are:

Los Angeles River upstream of Figueroa Street - Hydrologic Unit 405.21

Existing: ground water recharge; contact and non-contact water recreation; warm freshwater habitat; wildlife habitat; and wetland habitat.
Potential: municipal and domestic supply¹; and industrial service supply.

Los Angeles River downstream of Figueroa Street - Hydrologic Unit 405.15

Existing: ground water recharge; contact² and non-contact water recreation; and warm freshwater habitat.
Potential: municipal and domestic supply¹; and industrial service supply.

¹ Municipal and domestic supply designations under State Water Resources Control Board Order No. 88-063 and Regional Board Resolution No. 89-003.

² Access prohibited by Los Angeles County Department of Public Works.

Los Angeles River downstream of Figueroa Street - Hydrologic Unit 405.12

- Existing: ground water recharge; contact² and non-contact water recreation; warm freshwater habitat; marine habitat; wildlife habitat; and rare, threatened, or endangered species.
- Potential: municipal and domestic supply¹; industrial service supply; industrial process supply; migration of aquatic organisms; spawning, reproduction, and/or early development; and shellfish harvesting².

Los Angeles River Estuary - Hydrologic Unit 405.12

- Existing: industrial service supply; navigation; contact and non-contact water recreation; commercial and sport fishing; estuarine habitat; marine habitat; wildlife habitat; rare, threatened, or endangered species³; migration of aquatic organisms⁴; spawning, reproduction, and/or early development⁴; and wetland habitat.
- Potential: shellfish harvesting.

The requirements in this order are intended to protect designated beneficial uses and enhance the water quality of the watershed.

Pollutants of Concern and Impairments

26. The 1996 State Water Resources Control Board's (SWRCB) *Water Quality Assessment Report* identified the water quality condition of water bodies in the Los Angeles Region. In the Los Angeles River, the following beneficial uses were determined to be either impaired or threatened to be impaired: aquatic life, contact and non-contact recreation. The report also identified that the quality of the water is impacted by bacteriological contamination (coliform count), heavy metals (lead and silver), ammonia, nitrogen, nutrients (algae), oil, pH, total dissolved solids, chloride, turbidity, trash, scum, and odor.

³ One or more rare species utilize all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

⁴ Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

Human Health

27. There is public contact in the downstream areas of the receiving water; therefore, the quality of wastewater discharged to the Los Angeles River must be such that no public health hazard is created.

Nutrients

28. The Federal Clean Water Act requires that each state provides a list of impaired surface waters (303(d) list). Water bodies on the 303(d) list must have Total Maximum Daily Loads (TMDLs) established.

The Los Angeles River is included in the 303(d) list due to ammonia and nitrogen pollution. The Regional Board has conducted a TMDL which assessed the extent of the ammonia and total nitrogen problem and sources in the Los Angeles River during dry weather conditions. The draft Los Angeles River nitrogen TMDL proposes future effluent limits for the existing POTWs which will result in achievement of Basin Plan objectives in the river. The proposed effluent limits for the Tillman Plant are:

Total nitrogen	8 mg/L
Ammonia-N	4 mg/L

The Discharger will have until the year 2002 to: (a) meet the Basin Plan objective by making the necessary adjustments/improvements to meet the above limits, or (b) conduct studies leading to an approved site specific objective for ammonia.

29. Phosphorus also contributes to the algae growth in the Los Angeles River, this permit contains provisions to monitor the amount of phosphorous that the Tillman Plant discharges into the Los Angeles River.

Methyl Tertiary Butyl Ether

30. Methyl Tertiary Butyl Ether (MTBE) is a major component of gasoline and has been detected in drinking water wells throughout California. The threat to human health from MTBE is being evaluated at this time by the USEPA and the California Department of Health Services.

Toxic Constituents

31. Numeric toxic constituent limitations are prescribed for this discharge pursuant to the narrative water quality objective in the Basin Plan for toxic constituents and 40 CFR Part 122.44. The numeric toxic limitations are based on Basin Plan Objectives, USEPA's Water Quality Criteria, and the National Toxics Rule.

For toxic constituents that have not been consistently detected in the effluent and have been determined to have no reasonable potential for causing or contributing to excursions in water quality objectives, no numerical limitations are prescribed. Instead, a narrative limit to comply with all water quality requirements is provided in lieu of such numerical limitations.

Performance Goals

32. The Regional Board has implemented the Water Quality Task Force⁵ recommendations on the use of performance goals, rather than performance-based limits, when appropriate. The use of performance goals is intended to minimize pollutant loadings and at the same time maintain the incentive for future voluntary improvement of water quality wherever feasible, without fear of being punished with more stringent limits based on improved performance. This Order contains performance goals.

The performance goals require the Discharger to maintain its treatment efficiency while recognizing normal variations in treatment plant operations, influent quality, and sampling and analytical techniques. This approach, however, does not address substantial changes in operations that may occur in the future and could affect the quality of the treated effluent. As such, this Order provides that performance goals may be modified by the Executive officer, if warranted. The listed effluent performance goals are not enforceable limitations or standards.

33. The performance goals prescribed in this Order are based on the following:
- (a) For pollutants which have been detected in the effluent, performance goal of a constituent is statistically set at the 95th percentile confidence level of the January 1993 through December 1997 monitoring data. Therefore, it is expected that one sample in twenty may exceed the goal during normal plant operation in the long-term.
 - (b) For other pollutants whose monitoring data have consistently showed nondetectable levels, or which have been occasionally detected at levels less than the Practical Quantitation Levels (PQL); the effluent quality performance goals are set at the PQL. The PQL is determined by multiplying the USEPA published method detection limit or the Discharger's method detection limit approved by the executive Officer with the factor five (5) for carcinogens or non-classified compounds and ten (10) for non-carcinogens.

⁵ *Working Together for an Affordable Clean Water Environment*. A final report presented to the California Regional Water Quality Control Board, Los Angeles Region by Water Quality Advisory Task Force, September, 1993.

State and Federal Regulations

34. Effluent limitations, toxic, and pretreatment effluent standards, established pursuant to Sections 208(b), 301, 302, 303(d), 304, 307, 403, and 405 of the Federal Clean Water Act and amendments thereto, are applicable to this discharge.
35. Pursuant to 40 CFR Part 403, the City developed and has implemented a USEPA-approved industrial wastewater pretreatment program. This Order requires proper implementation of the pretreatment program.
36. Section 402(p) of the Clean Water Act, as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, the USEPA promulgated 40 CFR Part 122.26 which established requirements for storm water discharges under NPDES program. To facilitate compliance with federal regulations, in 1992, the State Water Resource Control Board issued a statewide general permit [NPDES No. CAS000001, reissued on April 17, 1997] to regulate storm water discharges associated with industrial activity. The Tillman Plant is covered by that general permit and its requirements are incorporated in this Order by reference.
37. The requirements contained in this Order were derived using best professional judgement and are based on the Basin Plan, Federal and State plans, policies, guidelines; and, as they are met, will be in conformance with the goals of the aforementioned water quality control plans, water quality criteria, and will protect and maintain existing and potential beneficial uses of the receiving water.
38. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with §21100, et. seq.), Division 13, Public Resources Code pursuant to California Water Code §13389.

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.

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

This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to §402 of the Federal Clean Water Act, or amendment thereto, and shall take effect at the end of ninety one days from the date of its adoption provided the Regional Administrator of the USEPA has no objections.

IT IS HEREBY ORDERED that the City of Los Angeles, as operator of the Tillman Plant, in order to meet the provisions contained in Division 7 of the California Water Code and

regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

I. DISCHARGE REQUIREMENTS

A. Effluent Limitations

1. Wastes discharged shall be limited to tertiary treated municipal wastewater only, as proposed.
2. The discharge of an effluent with constituents in excess of the following limits is prohibited:

(a) Conventional and nonconventional pollutants:

<u>Constituent</u>	<u>Units</u>	<u>Discharge Limitations⁽¹⁾</u>		
		<u>Monthly Average</u>	<u>7-Day Average⁽²⁾</u>	<u>Daily Maximum⁽³⁾</u>
BOD ₅ 20°C	mg/L lbs/day ⁽⁴⁾	20 13,300	30 20,000	45 30,000
Chloride	mg/L lbs/day ⁽⁴⁾	-- --	-- --	190 13,000
Detergents (as MBAS)	mg/L lbs/day ⁽⁴⁾	-- --	-- --	0.5 330
Fluoride	mg/L lbs/day ⁽⁴⁾	-- --	-- --	2.0 1,380
Nitrite-N (as N)	mg/L lbs/day ⁽⁴⁾	-- --	-- --	1 670
Nitrite+Nitrate-N (as N)	mg/L lbs/day ⁽⁴⁾	-- --	-- --	8 5,300
Oil and grease	mg/L lbs/day ⁽⁴⁾	10 6,700	-- --	15 10,000
Settleable solids	ml/L	0.1	--	0.3
Sulfate	mg/L lbs/day ⁽⁴⁾	-- --	-- --	300 200,000
Suspended solids	mg/L lbs/day ⁽⁴⁾	15 10,000	40 27,000	45 31,000
Total dissolved solids	mg/L lbs/day ⁽⁴⁾	-- --	-- --	950 634,000
Total residual chlorine ⁽¹²⁾	mg/L lbs/day ⁽⁴⁾	-- --	-- --	0.1 67

(b) Toxic pollutants (metals):

Discharge Limitations^[1,4]

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum^[3]</u>
Arsenic	µg/L	--	50
Barium	mg/L	--	1.0
Cadmium ^[5]	µg/L	1	3.7
Chromium (VI) ^[6]	µg/L	10	15
Copper ^[5]	µg/L	11	17
Lead	µg/L	2.5 ^[5]	15
Mercury ^[7]	µg/L	0.012	2.1
Nickel	µg/L	--	100
Selenium ^[8]	µg/L	5	10
Silver ^[5]	µg/L	--	3.4
Zinc ^[5]	µg/L	100	110

(c) Toxic pollutants (pesticides/PCBs):

Discharge Limitations^[1,4]

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u> ^[3]
Dieldrin	µg/L	0.0019	2.5
DDT ^[9]	µg/L	0.001	1.1
Endosulfan-alpha	µg/L	0.056	0.22
Endosulfan-beta	µg/L	0.056	0.22
Endrin	µg/L	0.0023	0.18
Lindane	µg/L	0.08	0.2
Toxaphene	µg/L	0.0002	0.73
PCBs ^[10]	µg/L	0.014	0.5

(d) Toxic pollutants (volatile organics):

<u>Constituent</u>	<u>Units</u>	<u>Discharge Limitations^[1,4]</u>	
		<u>Monthly Average</u>	<u>Daily Maximum^[3]</u>
Benzene	µg/L	--	1
Bromodichloromethane	µg/L	--	100
Chloroform	µg/L	--	100
Dibromochloromethane	µg/L	--	100
1,4-dichlorobenzene	µg/L	--	5
1,2-dichloroethane	µg/L	--	0.5
Ethylbenzene	µg/L	--	700
Methylene chloride	µg/L	--	5
Tetrachloroethylene	µg/L	--	5
Toluene	µg/L	--	150

(e) Toxic pollutants (base/neutral extractables):

<u>Constituent</u>	<u>Units</u>	<u>Discharge Limitations^[1,4]</u>	
		<u>Monthly Average</u>	<u>Daily Maximum^[3]</u>
Bis(2-ethylhexyl)phthalate	µg/L	--	4
PAHs ^[11]	µg/L	--	0.2

(f) Toxic Pollutants (Miscellaneous):

<u>Constituent</u>	<u>Units</u>	<u>Discharge Limitations^[1,4]</u>	
		<u>Monthly Average</u>	<u>Daily Maximum^[3]</u>
Cyanide	µg/L	5.2	22

Footnotes to discharge limitations:

- [1] If the constituent limit is less than the method detection limit, compliance with the constituent limit shall be based on the PQL (Practical Quantitation Level). PQL shall be determined by multiplying the USEPA method detection limit (MDL) shown in Attachment 1 or the Discharger's performance MDL approved by the Executive Officer, with the factors five (5) for carcinogens or non-classified compounds, and ten (10) for noncarcinogens. If the constituent limit is between the method detection limit and PQL, compliance with the constituent limit may be based on a 95th percentile of a distribution of samples taken within a month rather than one single sample.
- [2] As defined in Standard Provisions, Attachment N.
- [3] The daily maximum effluent concentration limit shall apply to both flow weighted 24-hour composite samples and grab samples, as specified in the Monitoring and Reporting Program (Attachment T).
- [4] The mass emission rate limitations shall be determined by multiplying the plant design flow rate of 80 mgd by the respective concentration limit.
- [5] Concentrations expressed as total recoverable metals, and corresponded to a total hardness of 100 mg/L and water effect ratio of 1.0. For other conditions, the limits can be calculated by following 40 CFR §131.36(b)(2) and/or a water effect ratio study according to USEPA guidance documents and/or state protocols, if applicable.
- [6] The discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been made for hexavalent chromium in replicate sample and the result shows within the hexavalent chromium limits. Concentrations are expressed as total recoverable hexavalent chromium and corresponded to a water effect ratio of 1.0. For other conditions, the limits can be calculated by following a water effect ratio study according to USEPA guidance documents and/or state protocols, if applicable.
- [7] Concentrations expressed as total recoverable. The daily maximum concentration corresponds to a water effect ratio of 1.0. For other conditions, the limits can be calculated by following a water effect ratio study according to USEPA guidance documents and/or state protocols, if applicable.
- [8] Concentration expressed as total recoverable.
- [9] DDT shall mean the sum of the p,p' and o,p' isomers of DDT, DDD, and DDE. The PQL for DDT will be calculated on the basis of the MCL for DDT.
- [10] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
- [11] PAHs (polynuclear, aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, ideno[1,2,3-cd]pyrene, phenanthrene, and pyrene. The PQL for PAHs will be calculated on the basis of the MCL for benzo[a]pyrene.
- [12] Total residual chlorine concentration excursions of up to 0.3 mg/l shall not be considered in violation of this requirement provided the total duration of such excursions do not exceed 15 minutes during any 24-hour

Footnotes to discharge limitations (continued):

period. Peaks in excess of 0.3 mg/l lasting less than one minute while changing sulfur dioxide tanks shall not be considered in violation of this requirement.

-
3. The pH of wastes discharged shall at all times be within the range of 6.0 to 9.0.
 4. The temperature of wastes discharged shall not exceed 100°F.
 5. Radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Section 64443, of the California Code of Regulations, or subsequent revisions.
 6. The arithmetic mean of BOD₅ 20°C and suspended solids values, by weight, for effluent samples collected in a period of any monthly period shall not exceed 15 percent of the arithmetic mean of values, by weight, for influent samples collected at approximately the same time during the same period.
 7. The wastes discharged to water courses shall at all times be adequately disinfected. For the purpose of this requirements, 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 monthly 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 disinfection processes.
 8. The wastes discharged to water courses shall have received treatment equivalent to that of filtered wastewater. Filtered wastewater means an oxidized, coagulated, and clarified wastewater that has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity of the filtered wastewater does not exceed any of the followings: (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.

During storm events when the plant is treating more than 10% in excess of its treatment design capacity to minimize the potential of overflows in the sewage collection system downstream of the plant, the turbidity of the filtered wastewater shall not exceed any of the followings: (a) a daily average of 5 NTUs in the first 24 hours following the end of the storm event; (b) a daily average of 3 NTUs between 24 and 48 hours after the end of the storm event; and (c) 10 NTUs at any time.

"Oxidized wastewater" means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen. "Coagulated wastewater" means oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated upstream of a filter by the addition of suitable flocc-forming chemicals.

9. Acute Toxicity Limitation:

The acute toxicity of the effluent shall be such that 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%, with no single test less than 70% survival.

If the acute toxicity limitation is violated three consecutive months, the Discharger shall conduct 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.

10. To protect underlying ground water basins, ammonia shall not be present in the wastes discharged at levels that, when oxidized to nitrate, pose a threat to ground water quality.

B. Effluent Quality Performance Goals

The discharger shall make best efforts to maintain the following effluent quality goals. Exceedance of any goal shall trigger an investigation by the Discharger on the causes of the exceedance. The Discharger shall report to the Regional Board on a quarterly basis any exceedance of these effluent quality goals. If exceedance of any particular goal persists on two succeeding quarterly monitoring periods, the second quarterly report shall contain the results of the Discharger's investigation including but not be limited to the description of the exceedance, cause(s) of the exceedance, and proposed corrective measures, if necessary.

The Executive Officer may modify any of the performance goals upon demonstration by the discharger that the change is warranted.

<u>Constituent</u>	<u>Units</u>	<u>Effluent Quality Performance Goals^[1]</u>
		<u>Monthly Average</u>
BOD ₅ , 20°C	mg/L	11
Suspended solids	mg/L	4
Oil and grease	mg/L	4.4
Arsenic	µg/L	15
Nickel	µg/L	50
Zinc	µg/L	71
Bromoform	µg/L	3
Lindane	µg/L	0.05
Chloroform	µg/L	18
Ethylbenzene	µg/L	1
Bromodichloromethane	µg/L	5
Dibromochloromethane	µg/L	7
Toluene	µg/L	3
Remaining priority pollutants (Attachment 1)	µg/L	PQL ^[2]

Footnotes to effluent quality performance goals:

[1] Numerical effluent quality performance goals were derived statistically using effluent performance data from January 1993 through December 1997. Effluent values (x_i) are assumed to be lognormally distributed. The use of logarithmic transformation equation, $Y_i = \ln(x_i)$, results in effluent values (Y_i) that are normally distributed. Effluent quality performance goals are determined using the mean (u_n) and the standard deviation (σ_n) of the distribution of the average using the equation:

$$x_{95th} = \exp [u_n + (Z_{0.95}) \sigma_n]$$

where

- x_{95th} = Discharge effluent quality performance goal at the 95th percentile of the normal distribution.
 - u_n = Mean distribution of the average (transformed).
 - $Z_{0.95}$ = Z-value from the Table of Areas under the Standard Normal Curve: equal to 1.645 at 95 percent.
 - σ_n = Standard deviation of the average transformed.
- Exp is an exponential to the base "e" value = 2.7183

[2] PQL (Practical Quantitation Level) shall be determined by multiplying the USEPA published method detection limit (MDL) (Attachment 1) or the Discharger's MDL, approved by the Executive Officer, with the factor five (5) for carcinogens or non-classified compounds and ten (10) for non-carcinogens.

C. Receiving Water Limitations

Receiving water limitations apply to direct discharge from the Tillman Plant (Discharge Serial Nos. 001, 002, 003, and 008) and discharges from the wildlife and recreation lakes (Lake Discharge Serial Nos. 004, 005, 006, and 007).

1. The temperature of the receiving water at any time shall not be raised above 80 °F as a result of the wastes discharged.
2. The pH of the receiving water shall not be depressed below 6.5 or raised above 8.5 as a result of wastes discharged.
3. The dissolved oxygen in the receiving water shall not be depressed below 5 mg/L as a result of the wastes discharged.
4. The residual chlorine in the receiving water shall not exceed 0.1 mg/L as a result of the wastes discharged.
5. The fecal coliform concentration in the receiving water shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10% of total samples during any 30-day period exceed 400/100 ml as a result of the wastes discharged.
6. The wastes discharged shall not produce concentrations of toxic substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life.
7. The wastes discharged shall not contain substances that result in increases in the BOD which adversely affect the beneficial uses of the receiving waters.
8. The wastes discharged shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses of the receiving waters.
9. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.
10. 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.
11. The wastes discharged shall not degrade surface water communities and populations, including vertebrate, invertebrate, and plant species.

12. The wastes discharged shall not result in problems due to breeding of mosquitos, gnats, black flies, midges, or other pests.
13. The wastes discharged shall not result in visible floating particulates, foams, and oil and grease in the receiving waters.
14. 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.
15. The wastes discharged shall not alter the natural taste, odor, and color of fish, shellfish, or other surface water resources used for human consumption.
16. The wastes discharged shall not increase the turbidity of the receiving waters to the extent that such an increase causes nuisance or adversely affects beneficial uses.
17. The Department of Parks and Recreation shall manage the recreation lake and wildlife lake such that beneficial uses of the receiving water are not impaired.

D. Receiving Water Objectives

1. To protect aquatic life, ammonia in receiving waters shall not exceed concentrations specified in Tables 3-2 and 3-4 of the Basin Plan (Attachment 4) as a result of the wastes discharged, subject to the following conditions:

The Discharger will have until the year 2002 to: (a) make the necessary adjustments/improvements to meet these objectives, or (b) conduct studies leading to an approved less restrictive site specific objective for ammonia. If it is determined that there is an immediate threat or impairment of beneficial uses due to ammonia, the objectives in Tables 3-2 and 3-4 of Attachment 4 shall apply and the timing of compliance will be determined on a case-by-case basis.

2. There shall be no chronic toxicity in ambient waters as a result of the waste discharged.

If the chronic toxicity in the receiving water downstream of the discharge point during three consecutive months exceeds 1.0 TU_c in a critical life stage test, the Discharger shall determine if the cause of the exceedance is the wastes discharged. If it is determined that the wastes discharged caused the exceedance, the Discharger shall conduct 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.

II. PRETREATMENT REQUIREMENTS

- A. 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 and USEPA in writing and shall not become effective until approved by the Executive Officer and the USEPA Regional Administrator.
- B. The Discharger shall implement and enforce its approved pretreatment program. The Discharger shall be responsible and liable for the performance of all pretreatment requirements contained in Federal Regulations 40 CFR Part 403, including subsequent regulatory revisions thereof. Where Part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within six months from the effective date of this Order or the effective date of the Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines, and other remedies by the Regional Board, USEPA, or other appropriate parties, as provided in the Federal Clean Water Act. The Regional Board or USEPA may initiate enforcement action against an industrial user for non-compliance with acceptable standards and requirements as provided in the Federal Clean Water Act and/or the California Water Code.
- C. The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Federal Clean Water Act. The Discharger shall cause 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.
- D. The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not be limited to:
- (i) Implement the necessary legal authorities as provided in 40 CFR 403.8 (f) (1);
 - (ii) Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
 - (iii) Implement the programmatic functions as provided in 40 CFR 403.8 (f) (2); and
 - (iv) Provide the requisite funding of personnel to implement the pretreatment program as provided in 40 CFR 403.8 (f) (3).
- E. The Discharger shall submit annually a report to the Regional Board, the SWRCB, and the USEPA Region 9, describing the discharger's pretreatment activities over the previous twelve months. In the event the Discharger is not in compliance with any conditions or requirements of this permit, then the Discharger will also include the

reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements. This annual report is due on March 1 of each year and shall contain, but not be limited to, the information required in the attached Requirements for Pretreatment Annual Report (Attachment P) or approved revised version thereof.

III. REQUIREMENTS AND PROVISIONS

- A. This order includes the attached Standard Provisions and General Monitoring and Reporting Requirements (Standard Provisions) (Attachment N). If there is any conflict between provisions stated herein and the Standard Provisions, those provisions stated herein prevail.
- B. This Order includes the attached Monitoring and Reporting Program (Attachment T). If there is any conflict between provisions stated in Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the former prevail.
- C. The Discharger shall comply with the requirements of the State Water Resources Control 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) (Attachment 3).
- D. The Discharger shall comply with all applicable water quality objectives for the Los Angeles River, including the toxic criteria in 40 CFR Part 131.36.
- E. 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 causes, the discharge of raw or inadequately treated sewage does not occur.
- F. 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 management approach and/or for the addition of a limitation for phosphorous.
- G. This permit may be modified according to 40 CFR Part 122.62 if new regulations are adopted by the State of California, including the Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (California Toxics Rule) and implementation policies (State's Toxics Standards Implementation Policy).
- H. 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 and permit, endangerment to human health, or the environment resulting from the permitted activity.

- I. The Department of Recreation and Parks shall notify the Executive Officer in writing no later than six months prior to planned addition of any chemical to the lakes which may be toxic to aquatic life. Such notification shall include but not limited to:
- a. Name and general composition of the chemical;
 - b. Estimated frequency of use: and ,
 - c. Recommended concentration and estimated quantities to be used.

IV. EXPIRATION DATE

This Order expires on May 10, 2003.

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

V. RESCISSION

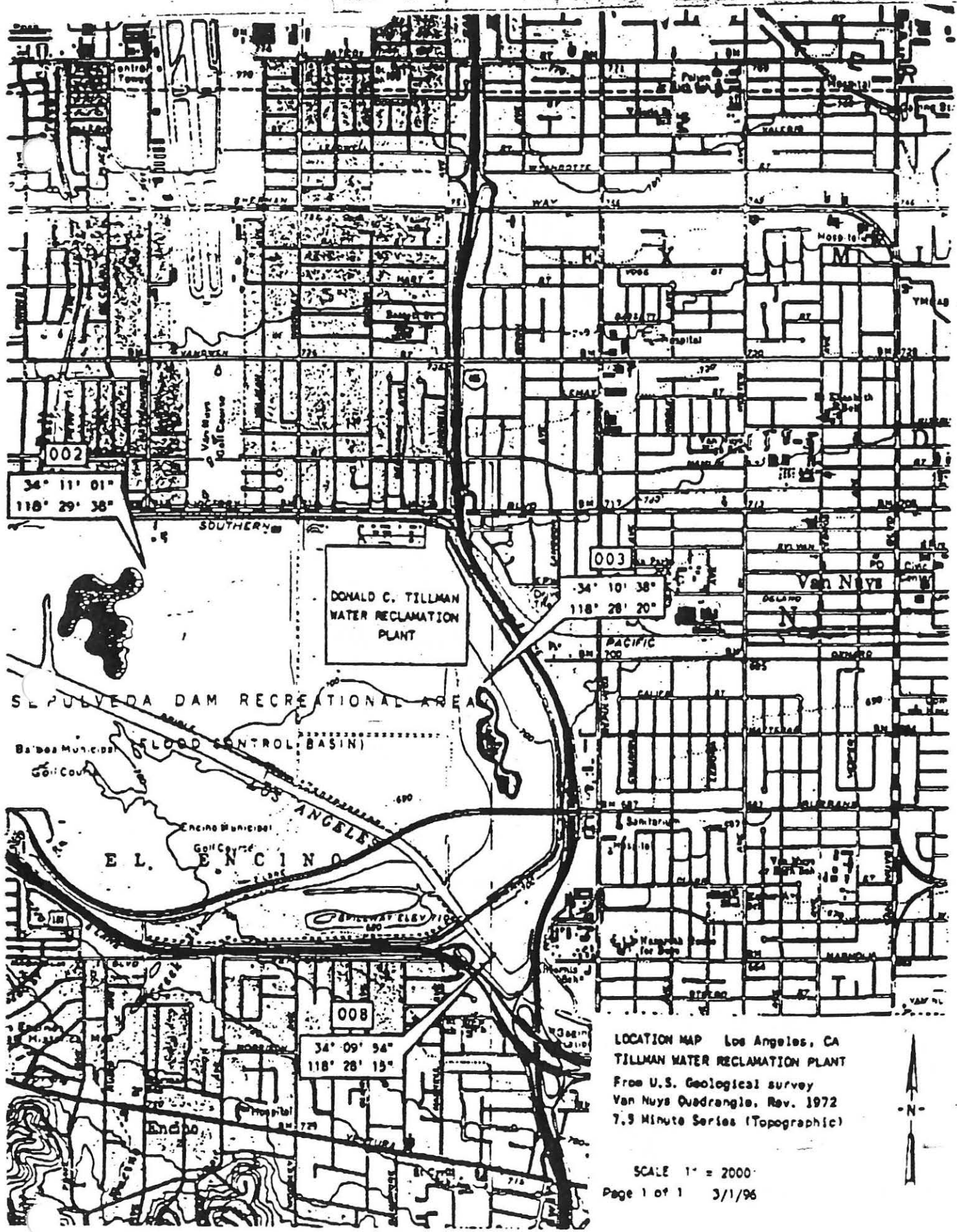
Order No. 91-102, adopted by this Regional Board on September 9, 1991, is hereby rescinded, except for enforcement purposes.

I, Dennis Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 15, 1998.



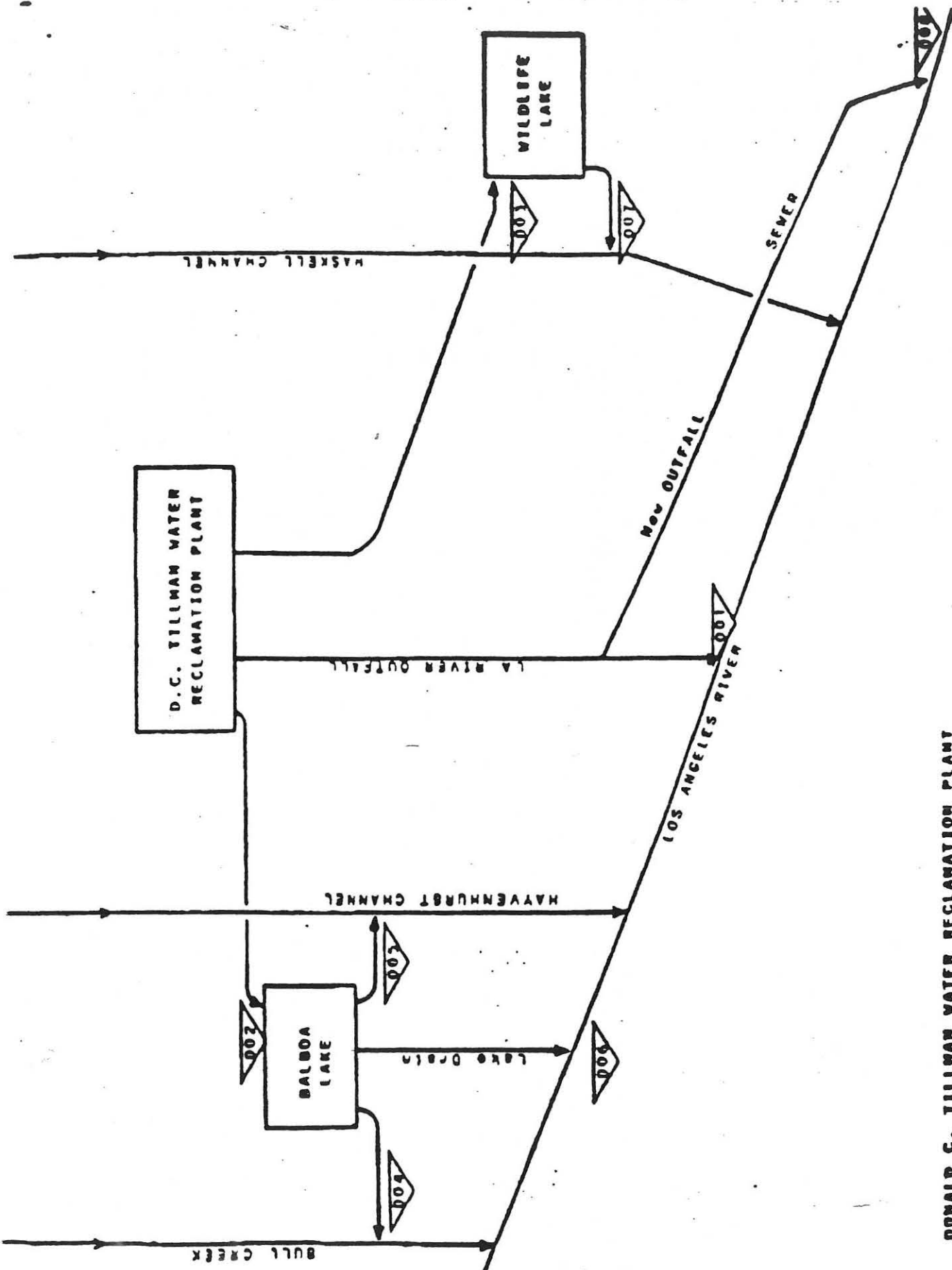
DENNIS DICKERSON
Executive Officer

/GS

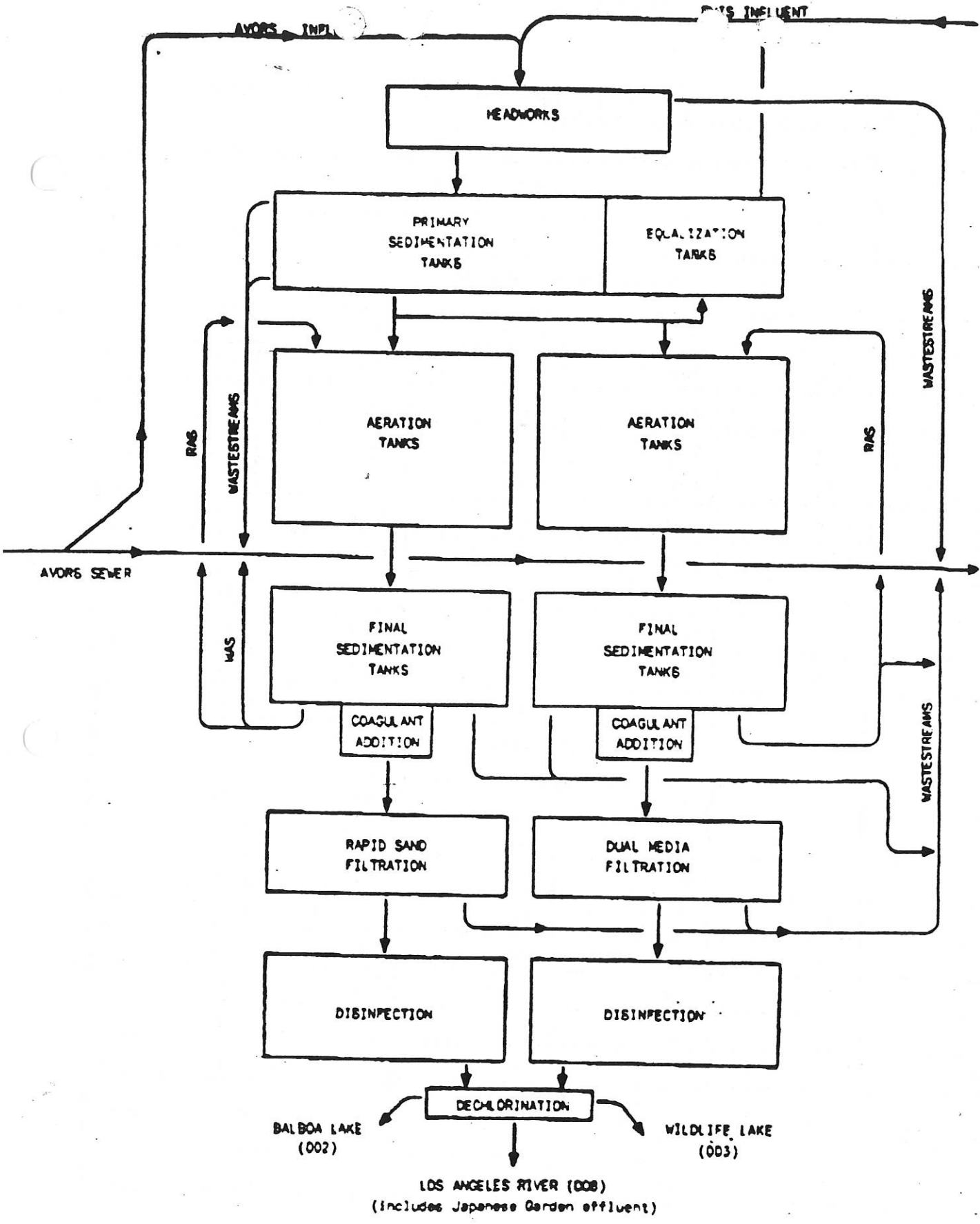


LOCATION MAP Los Angeles, CA
 TILLMAN WATER RECLAMATION PLANT
 From U.S. Geological survey
 Van Nuy's Quadrangle, Rev. 1972
 7.5 Minute Series (Topographic)

SCALE 1" = 2000'
 Page 1 of 1 3/1/96



DONALD C. TILLMAN WATER RECLAMATION PLANT
SCHEMATIC FLOW DIAGRAM



ATTACHMENT 3

Table 3-2. One-hour Average Concentration for Ammonia^{1,2} for Waters Designated as WARM (Salmonids or Other Sensitive Coldwater Species Absent).

pH	Temperature, °C				
	0	5	10	15	20
Un-ionized ammonia (mg/liter NH ₃)					
6.50	0.0091	0.0129	0.0182	0.026	0.036
6.75	0.0149	0.021	0.030	0.042	0.059
7.00	0.023	0.033	0.046	0.066	0.093
7.25	0.034	0.048	0.068	0.095	0.135
7.50	0.045	0.064	0.091	0.128	0.181
7.75	0.056	0.080	0.113	0.159	0.22
8.00	0.065	0.092	0.130	0.184	0.26
8.25	0.065	0.092	0.130	0.184	0.26
8.50	0.065	0.092	0.130	0.184	0.26
8.75	0.065	0.092	0.130	0.184	0.26
9.00	0.065	0.092	0.130	0.184	0.26
Total ammonia (mg/liter NH ₃)					
6.50	35	33	31	30	29
6.75	32	30	28	27	27
7.00	28	26	25	24	23
7.25	23	22	20	19.7	19.2
7.50	17.4	16.3	15.5	14.9	14.6
7.75	12.2	11.4	10.9	10.5	10.3
8.00	8.0	7.5	7.1	6.9	6.8
8.25	4.5	4.2	4.1	4.0	3.9
8.50	2.6	2.4	2.3	2.3	2.3
8.75	1.47	1.40	1.37	1.38	1.42
9.00	0.86	0.83	0.83	0.86	0.91

1 To convert these values to mg/liter N, multiply by 0.822

2 Source: USEPA, 1986

Table 3-4. Four-day Average Concentration for Ammonia^{1,2} for Waters Designated as WARM (Salmonids or Other Sensitive Coldwater Species Absent).

pH	Temperature, °C						
	0	5	10	15	20	25	30
Un-ionized ammonia (mg/liter NH ₃)							
6.50	0.0008	0.0011	0.0016	0.0022	0.0031	0.0031	0.0031
6.75	0.0014	0.0020	0.0028	0.0039	0.0055	0.0055	0.0055
7.00	0.0025	0.0035	0.0049	0.0070	0.0099	0.0099	0.0099
7.25	0.0044	0.0062	0.0088	0.0124	0.0175	0.0175	0.0175
7.00	0.0078	0.0111	0.0156	0.022	0.031	0.031	0.031
7.75	0.0129	0.0182	0.026	0.036	0.051	0.051	0.051
8.00	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
8.25	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
8.50	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
8.75	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
9.00	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
Total ammonia (mg/liter NH ₃)							
6.50	3.0	2.8	2.7	2.5	2.5	1.73	1.23
6.75	3.0	2.8	2.7	2.6	2.5	1.74	1.23
7.00	3.0	2.8	2.7	2.6	2.5	1.74	1.23
7.25	3.0	2.8	2.7	2.6	2.5	1.75	1.24
7.50	3.0	2.8	2.7	2.6	2.5	1.76	1.25
7.75	2.8	2.6	2.5	2.4	2.3	1.65	1.18
8.00	1.82	1.70	1.62	1.57	1.55	1.10	0.79
8.25	1.03	0.97	0.93	0.90	0.90	0.64	0.47
8.50	0.58	0.55	0.53	0.53	0.53	0.39	0.29
8.75	0.34	0.32	0.31	0.31	0.32	0.24	0.190
9.00	0.195	0.189	0.189	0.195	0.21	0.163	0.133

1 To convert these values to mg/liter N, multiply by 0.822.

2 Source: USEPA, 1992

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ATTACHMENT P

PRETREATMENT REPORTING REQUIREMENTS

I. ANNUAL REPORTING REQUIREMENTS

The annual report is due on April 1 of each year and shall contain, but not be limited to, the following information:

1. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the POTWS influent and effluent for those pollutants USEPA has identified under Section 307(a) of the Clean Water Act which are known or suspected to be discharged by nondomestic users. This will consist of an annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants detected in the full scan. The Discharger is not required to sample and analyze for asbestos.

Sludge shall be sampled and analyzed for the same pollutants as the influent and effluent sampling and analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples. This sampling method is applicable to sludge that is dewatered on site and is immediately hauled off site for disposal. However, if the sludge is dried in drying beds prior to its final disposal, the sludge composite sample must be from 12 discrete samples collected from twelve representative locations of the drying beds. Sludge results shall be expressed in mg/kg dry sludge, 100% dry weight basis.

Wastewater and sludge sampling and analysis shall be performed at a minimum of once per quarter. The Discharger shall also provide any influent, effluent, or sludge monitoring data for nonpriority pollutants which the Discharger believes may be causing or contributing to Interference, Pass-Through, or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto.

2. A discussion of Upset, Interference, or Pass-Through incidents, if any, at the treatment plant which the Discharger knows or suspects was/were caused by nondomestic users of the POTW system. The discussion shall include the reason(s) why the incident(s) occurred, the corrective action(s) taken and, if known, the name and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable local or federal discharge limitations to determine whether any additional limitations, or changes to existing

Attachment P
Pretreatment Reporting Requirements

requirements, may be necessary to prevent Pass-Through, Interference, or noncompliance with sludge disposal requirements.

3. An updated list of the Discharger's significant industrial users (SIUs) including their names and addresses and a list of deletions, additions, and SIU name changes keyed to the previously submitted list. The Discharger shall provide a brief explanation for each deletion. The SIU list shall identify the SIUs subject to Federal Categorical Standards by specifying which set of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations.
4. The Discharger shall characterize the compliance status of each Significant Industrial User (SIU), by providing a list or table which includes:
 - a. SIU name;
 - b. Industrial category;
 - c. Number of samples taken by the POTW during the year;
 - d. Number of samples taken by the SIU during the year;
 - e. A description that states the procedure used to ensure that all needed certificates were provided for Facilities which have total toxic organic management plan;
 - f. Standards violated during the year (Federal and local, reported separately);
 - g. Whether the facility was in Significant Noncompliance (SNC), as defined by 40 CFR Part 403.12 (f) (2) (vii), at any time in the year (This requirement may be submitted as an addendum, by July 1st of each year) ; and
 - h. A summary of enforcement or other actions taken during the year to return the SIU to compliance, including the type of action, and amount of fines assessed/collected (if any). Briefly describe any proposed actions, for bringing the SIU into compliance.
5. A short description of any significant changes in operating the Pretreatment Program which differ from the previous year including, but not limited to changes concerning: the program's administrative structure; local industrial discharge limitation; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms, resource requirements; or staffing levels.

Attachment P
Pretreatment Reporting Requirements

6. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.
7. A summary of public participation activities to involve and inform the public of the program including a copy of the newspaper notice, if any, required under 40 CFR 403.8 (f) (2) (vii) (This requirement may be submitted, as an addendum, by July 1st of each year).
8. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.
9. A brief description of any program the POTW implements to reduce pollutants from nondomestic users that are not classified as SIUs.

II. SEMI-ANNUAL REPORTING REQUIREMENTS

The Discharger shall submit a semi-annual compliance status report to the USEPA, the State Board, and the Regional Board. The report shall cover the periods January 1 - June 30. The report shall be submitted by August 31. The reports shall contain:

1. A list of SIUs which violated any standards or reporting requirements for which a Notice of Violation was issued during January - June;
2. What the violations were (distinguish between categorical and local limits);
3. What enforcement actions were taken; and
4. The status of active enforcement actions from the annual report, including closeouts (facilities under previous enforcement actions which attained compliance during the two quarters).

III. REPORT SUBMITTAL AND SIGNATORY

The semi-annual and annual reports shall be duly signed pursuant to 40 CFR Part 403.12 (j) and shall be sent to the following addresses:

California Regional Water Quality Control Board, Los Angeles Region
101 Center Plaza Drive
Monterey Park, CA 91754-2156

Pretreatment Program Manager
Division of Water Quality
State Water Resources Control Board
P.O. Box 944213

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

**MONITORING AND REPORTING PROGRAM No. CI-5695
FOR
CITY OF LOS ANGELES
(Donald C. Tillman Water Reclamation Plant)
NPDES No. CA0056227**

I. MONITORING AND REPORTING REQUIREMENTS

- A. The Discharger shall implement this monitoring program on the effective date of this Order. All monthly monitoring reports shall be submitted by the first day of the second month following each monthly sampling period, addressed to the Regional Board, Attention: Data and Information Management Unit. The first monitoring report under this Program is due by September 1, 1998, and will cover the monitoring period of July 1998.
- B. Weekly effluent analyses shall be performed on different weekdays during each month. Quarterly monitoring shall be performed during the months of February, May, August, and November. Semi-annual monitoring shall be performed during the months of February and August. Annual monitoring shall be performed during the month of February.
- C. Laboratory analyses: all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer. A copy of the laboratory certification shall be provided each time a new and/or renewal is obtained from ELAP.

The analyses shall specify the USEPA analytical method used and its Method Detection Limit (MDL). For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported with an actual numerical value or "non-detected (ND)" with the MDL indicated for the analytical method used. The maximum allowed MDLs are those published by the USEPA (MDLs for priority pollutants are listed in Attachment 1). In addition, the detection limits employed for effluent analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular detection limit is not attainable and obtains approval for a higher detection limit from the Executive Officer.

- D. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. All Quality Assurance/Quality Control (QA/QC) items must be run on the same dates when the samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff.

**Attachment P
Pretreatment Reporting Requirements**

Sacramento, CA 94244-2130

**Pretreatment Program Report
CWA Compliance Office (WTR-7)
Water Division
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105-3901**

- E. By April 1 of each year, the Discharger shall submit an annual report containing a discussion of the previous year's effluent and receiving water monitoring data, as well as graphical and tabular summaries of the data. The data shall be submitted to the Regional Board on hard copy and on 3 1/2" computer diskette following the Regional Board's format. In addition, the Discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with waste discharge requirements.
- F. The Discharger shall inform the Regional Board well in advance of any construction activity proposed that can potentially affect compliance with applicable requirements.
- G. Monitoring frequencies may be adjusted to a less frequent basis and sampling constituents dropped by the Executive Officer if such is requested by the discharger and backed by statistical trends of data submitted.

II. INFLUENT MONITORING REQUIREMENTS

(Footnotes on pages T-15 to T-17).

- A. Influent monitoring is required to:
 - i. determine compliance with NPDES permit conditions and water quality standards,
 - ii. assess treatment plant performance, and
 - iii. assess the effectiveness of the pretreatment program.
- B. Sampling stations shall be established at each point of inflow to the sewage treatment plant and shall be located upstream of any in-plant return flows and where representative samples of the influent can be obtained. The date and time of sampling shall be reported with the analytical results.
- C. Samples for influent BOD₅ 20°C and suspended solids shall be obtained on the same day that the effluent BOD₅ 20°C and suspended solids samples are obtained to demonstrate percent removal. Similarly, sampling of other constituents shall also be coordinated with effluent sampling.
- D. The following shall constitute the influent monitoring program:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Flow	mgd	recorder/totalizer	continuous ⁽¹⁾
pH	pH units	grab	daily
Suspended solids	mg/L	24-hour composite	weekly
BOD ₅ 20°C	mg/L	24-hour composite	weekly

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Phenols	µg/L	grab	semiannually
Cyanide	µg/L	grab	semiannually
Volatile organic compounds	µg/L	grab	semiannually
Remaining EPA priority pollutants (excluding asbestos, Attachment 1)	µg/L	24-hour composite	semiannually

III. EFFLUENT MONITORING REQUIREMENTS

(Footnotes on pages T-15 to T-17).

A. Effluent monitoring is required to:

- i. determine compliance with NPDES permit conditions,
- ii. identify operational problems and improve plant performance, and
- iii. provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.

B. An effluent sampling station shall be established for each point of discharge and shall be located downstream of any inplant return flows where representative samples of the effluent (after receiving all treatment) can be obtained. Effluent samples may be obtained at a single station provided that such station is representative of the effluent quality at all discharge points. Any changes in sampling station locations shall be approved by the Executive Officer.

C. The following shall constitute the effluent monitoring program for Discharge Serial Nos. 001, 002, 003, and 008:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Total waste flow	mgd	recorder	continuous ^[1]
Turbidity ^[2]	NTU	recorder	continuous ^[1]
Total residual chlorine	mg/L	recorder	continuous ^[1]
Total coliform ^[2]	MPN or CFU /100 ml	grab	daily
Temperature	°F	grab	daily
pH	pH units	grab	daily
Settleable solids	ml/L	grab	daily
Suspended solids	mg/L	24-hour composite	daily
BOD ₅ 20°C	mg/L	24-hour composite	daily
Oil and grease	mg/L	grab	weekly

<u>Constituent(cont'd)</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Dissolved oxygen	mg/L	grab	monthly
Total dissolved solids	mg/L	24-hour composite	monthly
Sulfate	mg/L	24-hour composite	monthly
Chloride	mg/L	24-hour composite	monthly
Ammonia nitrogen	mg/L	24-hour composite	monthly
Nitrate nitrogen	mg/L	24-hour composite	monthly
Nitrite nitrogen ^[3]	mg/L	24-hour composite	monthly
Organic nitrogen	mg/L	24-hour composite	monthly
Total nitrogen	mg/L	24-hour composite	monthly
Phosphate (as P)	mg/L	24-hour composite	monthly
Fluoride	mg/L	24-hour composite	monthly
Detergents (as MBAS) ^[3]	mg/L	24-hour composite	monthly
Chronic toxicity ^[4]	TU _c	24-hour composite	monthly
Iron	µg/L	24-hour composite	monthly
Arsenic	µg/L	24-hour composite	monthly
Cadmium	µg/L	24-hour composite	monthly
Chromium VI ^[5]	µg/L	24-hour composite	monthly
Copper	µg/L	24-hour composite	monthly
Lead	µg/L	24-hour composite	monthly
Mercury	µg/L	24-hour composite	monthly
Nickel	µg/L	24-hour composite	monthly
Selenium	µg/L	24-hour composite	monthly
Silver	µg/L	24-hour composite	monthly
Zinc	µg/L	24-hour composite	monthly
Total hardness	µg/L	24-hour composite	monthly
Cyanide	µg/L	grab	monthly
Boron	mg/L	24-hour composite	quarterly
Barium	µg/L	24-hour composite	quarterly
DDT ^[6]	µg/L	24-hour composite	quarterly ^[7]
Endosulfan-alpha	µg/L	24-hour composite	quarterly
Endosulfan-beta	µg/L	24-hour composite	quarterly
Endrin	µg/L	24-hour composite	quarterly
Dieldrin	µg/L	24-hour composite	quarterly
Lindane	µg/L	24-hour composite	quarterly
Bis (2-ethylhexyl) phthalate	µg/L	24-hour composite	quarterly
PAHs ^[8]	µg/L	24-hour composite	quarterly
Phenols	µg/L	grab	quarterly

<u>Constituent (cont'd)</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Benzene	µg/L	grab	quarterly
1,2-dichloroethane	µg/L	grab	quarterly
Chloroform	µg/L	grab	quarterly
Ethylbenzene	µg/L	grab	quarterly
Tetrachloroethylene	µg/L	grab	quarterly
Toluene	µg/L	grab	quarterly
Bromodichloromethane	µg/L	grab	quarterly
Dibromochloromethane	µg/L	grab	quarterly
1,4-dichlorobenzene	µg/L	grab	quarterly
Other volatile organic compounds	µg/L	grab	quarterly
Methylene chloride	µg/L	grab	quarterly
Halomethanes	µg/L	grab	quarterly
Acute toxicity ^[9]	TU _a	grab	quarterly
Methoxychlor	µg/L	24-hour composite	semiannually
2,4-D	µg/L	24-hour composite	semiannually
2,4,5-TP (Silvex)	µg/L	24-hour composite	semiannually
MTBE	µg/L	grab	semiannually
Toxaphene	µg/L	24-hour composite	semiannually
PCBs ^[10]	µg/L	24-hour composite	semiannually
Radioactivity ^[11]	pCi/L	24-hour composite	semiannually
Pesticides ^[12]	µg/L	24-hour composite	semiannually
Remaining EPA priority pollutants (excluding asbestos, Attachment 1)	µg/L	24-hour composite	semiannually

IV. WATERSHED-WIDE MONITORING PROGRAM

- A. Pursuant to the Code of Federal Regulations [40 CFR § 122.41 (j) and § 122.48 (b)], the monitoring program for a discharger receiving a NPDES permit must determine compliance with NPDES permit terms and conditions, and demonstrate that State water quality standards are met.
- B. Since compliance monitoring focuses on the effects of the point source discharge, it is not designed to assess impacts from other sources of pollution (e.g. non-point source runoff, aerial fallout) nor to evaluate the current status of important ecological resources on a regional basis.
- C. The goals of the Watershed-wide Monitoring Program for the upper Los Angeles River Watershed are: to determine compliance with receiving water limits, to monitor trends in

surface water quality, to assure protection of beneficial uses, and to provide data for modeling contaminants of concern.

- D. The Discharger shall participate in the implementation of the Watershed-wide Monitoring Program. The City's responsibilities under the Watershed-wide Monitoring Program are described in the Receiving Water Monitoring Requirements section. To achieve the goals of the Watershed-wide Monitoring Program, revisions to the Receiving Water Monitoring Requirements will be made under the direction of USEPA and the Regional Board.

V. RECEIVING WATER MONITORING REQUIREMENTS

- A. Receiving water stations for Discharge Serial Nos. 001 and 008 shall be at the following locations (Figure 1):

<u>Station Number</u>	<u>Los Angeles River Stations</u>
R-2	Los Angeles River, 500 feet downstream of Discharge Serial No. 001
R-5	At the confluence of the Los Angeles River and Encino Creek (upstream of Discharge Serial No. 001)
R-7	Los Angeles River, 1800 feet downstream of Discharge Serial No. 008
R-8	Los Angeles River, immediately upstream of confluence of Tujunga Wash
R-9	Los Angeles River at Reseda Boulevard (upstream of Discharge Serial Nos. 001 and 008)

- B. Receiving water stations for Lake Discharge Serial Nos. 004, 005 and 006, as indicated in the Sepulveda Basin Recreation Area - Recreation Lake Management Plan (City of Los Angeles, Department of Recreation and Parks, Landscape Design Division, August 1990), shall be at the following locations (Lake Balboa) (Figure 2):

<u>Station Number</u>	<u>Receiving Water Stations</u>
A	Hayvenhurst Channel, upstream from lake discharge (100 feet upstream of the Recreation Lake Storm Drain No. 5 outlet)
B	Hayvenhurst Channel at lake weir outlet (at Recreation Lake Storm Drain No. 3 outlet) (Discharge Serial No. 005)
C	Hayvenhurst Channel at lake weir outlet (at Recreation Lake Storm Drain No. 4 outlet)

- D At the confluence of the Los Angeles River and Hayvenhurst Channel
 - E Los Angeles River, downstream from Hayvenhurst Channel and upstream from Woodley Flood Control Channel
 - F At the Recreation Lake outlet spillway, prior to discharge into Hayvenhurst Channel
 - G Recreation Lake bottom drain outlet at the Los Angeles River (Discharge Serial No. 006)
 - H At the confluence of the Los Angeles River and Bull Creek
 - I Los Angeles River, upstream of Bull Creek
 - J Bull Creek at lake weir outlet (at Recreation Lake Storm Drain Nos. 1 and 2 outlets) (Discharge Serial No. 004)
 - K Bull Creek, upstream of lake discharge (100 feet upstream of Recreation Lake Storm Drain Nos. 1 and 2 outlets)
 - L Hayvenhurst Channel at lake weir outlet (at Recreation Lake Storm Drain No. 5 outlet)
- C. Receiving water stations for Lake Discharge Serial No. 007, as indicated in the Sepulveda Basin Recreation Area - Wildlife Lake Area Management Plan (City of Los Angeles, Department of Recreation & Parks, Landscape Design Division, February 1991), shall be at the following locations (Figure 3):

<u>Station Number</u>	<u>Receiving Water Stations</u>
W-A	Haskell Flood Control Channel, 200 feet upstream from diverter (station upstream from lake discharge)
W-B	Haskell Flood Control Channel at Burbank Boulevard (downstream from confluence of the lake outlet channel)
W-C	At the confluence of the Los Angeles River and Haskell Flood Control Channel (downstream from lake discharge)
W-D	Los Angeles River, upstream of Haskell Flood Control Channel (Station R-2 may be substituted for Station W-D)
W-E	Los Angeles River, downstream of Haskell Flood Control Channel

- D. Stations within the Recreation Lake for Discharge Serial No. 002, as indicated in the Revised Addendum to Sepulveda Basin Recreation Lake Management Plan (City of Los Angeles, Department of Recreation & Parks, August 23, 1991), shall be at the following locations (Figure 2):

<u>Station Number</u>	<u>Recreation Lake Stations</u>
No. 1	400 feet from the shoreline inflow waterfall
No. 2	400 feet southwest from Station No. 1
No. 3	400 feet southeast from Station No. 2
No. 4	400 feet from the outlet spillway
No. 5	In the lake inlet chamber
No. 6	In the northwest lobe of the lake, at the center of the lobe
No. 7	In the southwest cove of the lake, at the center of the cove area

- E. Stations within the Wildlife Lake for Discharge Serial No. 003, as indicated in the above-mentioned wildlife lake management plan, shall be at the following locations (Figure 3):

<u>Station Number</u>	<u>Wildlife Lake Stations</u>
W-1	In the center of the lake, north of the island, within the deep channel area
W-2	South of the island, near the westerly lake shoreline at 2 foot water depth
W-3	Within the concrete-lined lake outlet channel that discharges to Haskell Channel

- F. Type and frequency of monitoring. In reference to Stations A through L, W-A through W-E, 1 through 7, and W-1 through W-3, if discharger's request is backed by statistical trends of data, the Executive Officer shall decide whether to modify the sampling constituents, the minimum frequency of analysis, station locations, or the number of stations. Until approval has been given to modify the program, these monitoring requirements shall remain in effect.

1. The following analyses shall be conducted on grab samples obtained at Stations R-2, R-5, R-7, R-8, and R-9 (Stations R-2 and R-5 need be sampled only if Discharge Serial No. 001 is used for discharge of effluent):

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
pH	pH units	weekly
Temperature	°F	weekly
Dissolved oxygen	mg/L	weekly
Total residual chlorine	mg/L	weekly
Total coliform	MPN or CFU/100 ml	weekly
Fecal coliform	MPN or CFU/100 ml	weekly
Turbidity	NTU	quarterly
Total dissolved solids	mg/L	quarterly
Conductivity	µmhos/cm	quarterly
Chloride	mg/L	quarterly
Sulfate	mg/L	quarterly
Nitrate nitrogen	mg/L	quarterly
Nitrite nitrogen ^[13]	mg/L	quarterly
Ammonia nitrogen	mg/L	quarterly
Organic nitrogen	mg/L	quarterly
Total nitrogen	mg/L	quarterly
Total phosphate (as P)	mg/L	quarterly
Detergents (as MBAS) ^[3]	mg/L	quarterly
BOD ₅ 20°C	mg/L	quarterly
Total organic carbon	mg/L	quarterly
Oil and grease	mg/L	quarterly
Chronic toxicity ^[4]	TU _c	quarterly
MTBE	mg/L	quarterly
Arsenic	µg/L	quarterly
Cadmium	µg/L	quarterly
Total chromium	µg/L	quarterly
Copper	µg/L	quarterly
Lead	µg/L	quarterly
Mercury	µg/L	quarterly
Nickel	µg/L	quarterly
Zinc	µg/L	quarterly
Total hardness	µg/L	quarterly
Cyanide	µg/L	quarterly
Phenolic compounds	µg/L	semiannually
Aldrin and dieldrin	µg/L	semiannually
Endrin	µg/L	semiannually
HCH	µg/L	semiannually
Chlordane	µg/L	semiannually
DDT	µg/L	semiannually
Lindane	µg/L	semiannually
Toxaphene	µg/L	semiannually
PAHs ^[8]	µg/L	semiannually

2. The receiving water monitoring program for the Recreation Lake (Lake Balboa) shall be conducted during the discharge through Serial No. 002. The following analyses shall be conducted on grab samples obtained at Stations A through L:

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
Total residual chlorine	mg/l	weekly
Total coliform	MPN or CFU/100ml	weekly
Dissolved oxygen	mg/l	weekly
pH	pH units	weekly
Temperature	°F	weekly
Nitrate nitrogen	mg/l	quarterly
Nitrite nitrogen ^[13]	mg/l	quarterly
Ammonia nitrogen	mg/l	quarterly
Organic nitrogen	mg/l	quarterly
Total nitrogen	mg/l	quarterly
Total phosphate	mg/l	quarterly
Conductivity	µmhos/cm	quarterly
MBAS	mg/l	quarterly
COD	mg/l	quarterly
BOD ₅ 20°C	mg/l	quarterly
Oil and Grease	mg/l	quarterly
Arsenic	mg/l	semi-annually
Cadmium	mg/l	semi-annually
Total Chromium	mg/l	semi-annually
Copper	mg/l	semi-annually
Lead	mg/l	semi-annually
Mercury	mg/l	semi-annually
Nickel	mg/l	semi-annually
Zinc	mg/l	semi-annually
Cyanide	mg/l	semi-annually
Phenolic compounds	mg/l	semi-annually
Aldrin and Dieldrin	µg/l	semi-annually
Endrin	µg/l	semi-annually
HCH	µg/l	semi-annually
Chlordane	µg/l	semi-annually
Lindane	µg/l	semi-annually
Toxaphene	µg/l	semi-annually
PCBs	µg/l	semi-annually
DDTs	µg/l	semi-annually
PAHs	µg/l	semi-annually

3. The receiving water monitoring program for the Wildlife Lake shall be conducted during the discharge through Serial No. 003. The following analyses shall be conducted on grab samples obtained at Stations W-A through W-E:

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
Total residual chlorine	mg/l	weekly
Total coliform	MPN or CFU/100ml	weekly
Dissolved oxygen	mg/l	weekly
pH	pH units	weekly
Temperature	°F	weekly
Nitrate nitrogen	mg/l	quarterly
Nitrite nitrogen ^[13]	mg/l	quarterly
Ammonia nitrogen	mg/l	quarterly
Organic nitrogen	mg/l	quarterly
Total nitrogen	mg/l	quarterly
Total phosphate	mg/l	quarterly
Conductivity	µmhos/cm	quarterly
MBAS	mg/l	quarterly
COD	mg/l	quarterly
BOD ₅ 20°C	mg/l	quarterly
Oil and Grease	mg/l	quarterly
Arsenic	mg/l	semi-annually
Cadmium	mg/l	semi-annually
Total Chromium	mg/l	semi-annually
Copper	mg/l	semi-annually
Lead	mg/l	semi-annually
Mercury	mg/l	semi-annually
Nickel	mg/l	semi-annually
Zinc	mg/l	semi-annually
Cyanide	mg/l	semi-annually
Phenolic compounds	mg/l	semi-annually
Aldrin and Dieldrin	µg/l	semi-annually
Endrin	µg/l	semi-annually
HCH	µg/l	semi-annually
Chlordane	µg/l	semi-annually
Lindane	µg/l	semi-annually
Toxaphene	µg/l	semi-annually
PCBs	µg/l	semi-annually
DDTs	µg/l	semi-annually
PAHs	µg/l	semi-annually

4. The monitoring program for the Recreation Lake (Lake Balboa) shall be conducted during the discharge through Serial No. 002. The following analyses shall be conducted on samples obtained from the Recreation Lake Station Nos. 1 through 7. From the in-lake stations, samples shall be taken at one foot and seven foot water depths:

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
pH	pH units	daily
Temperature	°F	daily
Dissolved oxygen	mg/l	daily
Total nitrogen	mg/l	weekly
Ammonia nitrogen	mg/l	weekly
Organic nitrogen	mg/l	weekly
Nitrate nitrogen	mg/l	weekly
Nitrite nitrogen	mg/l	weekly
Total phosphorus	mg/l	weekly
Organic phosphorus	mg/l	weekly
Condensed phosphorus	mg/l	weekly
Orthophosphorus	mg/l	weekly

*Sampling for that non-limiting nutrient shall be changed to monthly upon approval by the Executive Officer. Until approval has been given, weekly monitoring shall remain in effect.

5. The following analyses shall be conducted on grab samples obtained at Recreation Lake Station No. 4 (samples shall be taken at one foot and seven foot water depths):

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
Fecal coliform	MPN or CFU/100ml	monthly
Total coliform	MPN or CFU/100ml	monthly
Suspended solids	mg/l	monthly
Conductivity	µmhos/cm	monthly
Lindane	ng/L	semiannually
DDT	ng/L	semiannually

6. The monitoring program for the Wildlife Lake shall be conducted during the discharge through Serial No. 003. The following analyses shall be conducted on grab samples obtained at the Wildlife Lake station nos. W-1, W-2, and W-3 (samples shall be taken from mid-depth):

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
pH	pH units	daily
Temperature	°F	daily
Dissolved oxygen	mg/l	daily
Total nitrogen	mg/l	weekly
Ammonia nitrogen	mg/l	weekly
Organic nitrogen	mg/l	weekly
Nitrate nitrogen	mg/l	weekly
Nitrite nitrogen	mg/l	weekly
Total phosphorus	mg/l	weekly
Organic phosphorus	mg/l	weekly
Condensed phosphorus	mg/l	weekly
Orthophosphorus	mg/l	weekly

7. The following analyses shall be conducted on grab samples obtained at Wildlife Lake Station No. W-3:

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
Fecal coliform	MPN or CFU/100ml	weekly
Total coliform	MPN or CFU/100ml	weekly
Suspended solids	mg/l	monthly
Conductivity	µmhos/cm	monthly

G. Once every quarter, representative bottom samples shall be collected at Recreation Lake Station No. 4, Wildlife Lake Station No. W-2, and Los Angeles River Station No. R-2. These bottom samples shall be analyzed for total organic nitrogen, total organic carbon, sediment grain size distribution, arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc, PCBs, DDTs, PAHs, cyanide, phenols, aldrin, dieldrin, endrin, HCH, chlordane and toxaphene. Constituents to be included in the PAHs analysis shall be approved by the Executive Officer.

H. At the same time the receiving waters are sampled, observations shall be made in the reaches bounded by Station Nos. R-5 and R-2, Station Nos. K and H, Station Nos. A and D, Station Nos. H and D, and Station Nos. W-A and W-C, and a log shall be maintained thereof. Attention shall be given to the presence and extent, or absence of:

1. oil, grease, scum, or solids of waste origin
2. sludge deposits
3. discoloration of surface waters
4. algal blooms
5. odors
6. foam
7. any unusual occurrences

The following shall also be noted in the log:

1. date and time of observation
2. weather conditions
3. estimate of flow
4. exact sampling location
5. users of water in the river (i.e. homeless, people washing in river, etc.)
6. non-contact users (i.e. bikers, joggers, etc.)
7. wildlife (i.e. birds, mammals, reptiles, estimated amount of vegetation)

Copies of the above log shall be submitted with the monitoring reports.

- I. In the event of a spill or bypass of raw or partially treated sewage from the Tillman Plant into the Los Angeles River system, total and fecal coliform analyses shall be made on grab samples collected at all potentially affected downstream receiving water stations and at least one unaffected upstream receiving water station. Coliform samples shall be collected at each station on the date of the spill or bypass, if possible, and daily on each of the following four days.
- J. Receiving water samples shall not be taken during or within 48 hours following the flow of rainwater runoff into the Los Angeles River system.

VI. COMPLIANCE WITH 7-DAY, MONTHLY AVERAGE, AND DAILY MAXIMUM LIMITS

- A. For constituents where both monthly average and maximum limits are specified but where the monitoring frequency is less than four times a month, the following procedure shall apply: Initially, not later than the first week of the second month after the adoption of this Order, a representative sample shall be obtained of each waste discharge at least once per week for at least four consecutive weeks and until compliance with the monthly average limit has been demonstrated. Once compliance has been demonstrated, sampling and analyses shall revert to the frequency specified.
- B. For any weekly monitored constituent: if any result of a weekly analysis exceeds the 7-day average limit (or the monthly average limit if no 7-day limit is prescribed), the frequency of analysis shall be increased to daily within one week of knowledge of the test results. Daily testing shall continue for at least 7 consecutive days and until compliance with the 7-day average limit is demonstrated, after which the frequency shall revert to weekly.
- C. For any monthly monitored constituent: if any result of a monthly analysis exceeds the monthly average limit, the frequency of analysis shall be increased to weekly within one week of knowledge of the test result. Weekly testing shall continue for at least 4 consecutive weeks and until compliance with the monthly average limit is demonstrated, after which the frequency shall revert to monthly.

VII. FOOTNOTES TO INFLUENT, EFFLUENT, AND RECEIVING WATER MONITORING REQUIREMENTS

[1] Where continuous monitoring of a constituent is required, the following shall be reported:

Total waste flow - Total daily flow and peak daily flow (24-hour basis);

Total residual chlorine - maximum daily value (24-hour basis);

Turbidity - Maximum daily value, total amount of time each day that turbidity exceeded five (5) turbidity units, the flow-proportioned average daily value.

- [2] Coliform and turbidity samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facilities, filtration, and disinfection procedures.
- [3] Methylene blue active substances.
- [4] Initial screening shall be conducted using a minimum of three test species with approved test protocols to determine the most sensitive test organism for chronic toxicity testing. The initial screening process shall be conducted for a minimum of three months, but not to exceed five months, to account for potential variability of the effluent/receiving water. If possible, the test species used during the screening process should include a fish, an invertebrate and aquatic plant.

Two screening processes should be conducted, one for the effluent chronic toxicity testing and one for the receiving waters chronic toxicity testing. If the results from the first series of screening tests reveal that the most-sensitive organism in the receiving water is the same as the effluent, no further screening tests are required for the receiving waters. However, the complete initial screening process should be conducted for the effluent.

After the initial screening period, chronic toxicity testing may be limited to the most sensitive test species. However, the initial screening process shall be repeated annually, with a minimum of three test species with approved test protocols, to ensure use of the most sensitive species for chronic toxicity testing.

Dilution and control waters for the effluent should be obtained from an unaffected area of the receiving waters. Standard dilution water may be used if the above source exhibits toxicity greater than 1.0 TU_c. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each batch of bioassay tests and reported with the test results.

Chronic toxicity shall be expressed and reported as toxic units, where:

$$TU_c = 100/NOEC$$

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

Except with prior approval from this Regional Board (Executive Officer) or USEPA, ammonia shall not be removed from the bioassay samples. The wastewater used for the toxicity test shall be analyzed for ammonia, and the result, along with an interpretation, shall be submitted with the toxicity data. If the test result is greater than the permit limitation, parallel tests of 100% effluent without ammonia removal and 100% effluent with ammonia removed shall be conducted.

If chronic toxicity in the effluent is higher than 1.0 TU_c during three consecutive months, the City shall conduct a toxicity identification evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the City shall take all reasonable steps to reduce toxicity in the effluent.

- [5] The discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been made for hexavalent chromium in replicate sample and the result shows within the hexavalent chromium limits.
- [6] DDT shall mean the sum of the p,p' and o,p' isomers of DDT, DDD, and DDE.

- [7] Monitoring shall be on a monthly basis while the City is under an interim limit; or until such time that the Executive Officer has determined that sufficient data have been collected to warrant reduction in monitoring frequency.
- [8] PAHs (polynuclear, aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, ideno[1,2,3-cd]pyrene, phenanthrene, and pyrene.
- [9] By methods specified in "Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms" (September 1991, EPA/600/4-90/027). Submission of bioassay results should include the information noted on pages 70 through 73 of the "Methods" where appropriate. The fathead minnow (*Pimephales promelas*) shall be used as the test species.

In lieu of conducting the standard acute toxicity test with fathead minnow, the Discharger may elect to report the results from the first 48 hours to the chronic toxicity test as acute toxicity test results.

Except with prior approval from this Regional Board (Executive Officer) or USEPA, ammonia shall not be removed from the bioassay samples. The wastewater used for the toxicity test shall be analyzed for ammonia, and the result, along with an interpretation, shall be submitted with the toxicity data. If the test result is greater than the permit limitation, parallel tests of 100% effluent without ammonia removal and 100% effluent with ammonia removed shall be conducted.

- [10] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
- [11] If gross α activity exceeds 5 pCi/l in any sample, measurement of Ra²²⁶ shall be made; if Ra²²⁶ exceeds 3 pCi/l, measurement of Ra²²⁸ shall be made. If gross β activity exceeds 50 pCi/l in any sample, an analysis of the sample shall be performed to identify the major constituents present and compliance with Title 17, Section 30269 shall also be demonstrated.
- [12] Pesticides are, for purposes of this Order, those six constituents referred to in 40 CFR Part 125.58 (m) (demeton, guthion, malathion, mirex, methoxychlor, and parathion).
- [13] During the pilot test studies and implementation phases of nitrogen controls, the monitoring frequency of nitrite in the effluent should be increased to weekly. If the nitrite concentration in the effluent exceeds 1.3 mg/l during the pilot test studies and implementation phases, the monitoring frequency of nitrite in the receiving water stations should be also increased to weekly.

VIII. HAULING REPORT

A monthly report shall be provided, noting the moisture content, weight, and volume of screenings, sludges, grit, and other solids removed from wastewater. The point(s) from which these wastes were obtained and the disposal sites to which waste solids were transported should be specified in the monthly reports.

This requirement does not cover those wastes that are routinely returned to the Additional Outfall Relief Sewer for downstream treatment at Hyperion Treatment Plant.

City of Los Angeles
Donald C. Tillman Water Reclamation Plant
Monitoring and Reporting Program No. 5695

CA0056227

IX. STORM WATER MONITORING AND REPORTING

The City shall implement the Storm Water Monitoring Program and Reporting Requirements of the California State Water Resources Control Board's NPDES General Permit No. CAS000001 and Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated with Industrial Activities (Order No. 97-03-DWQ) (Attachment 3).

Ordered by:

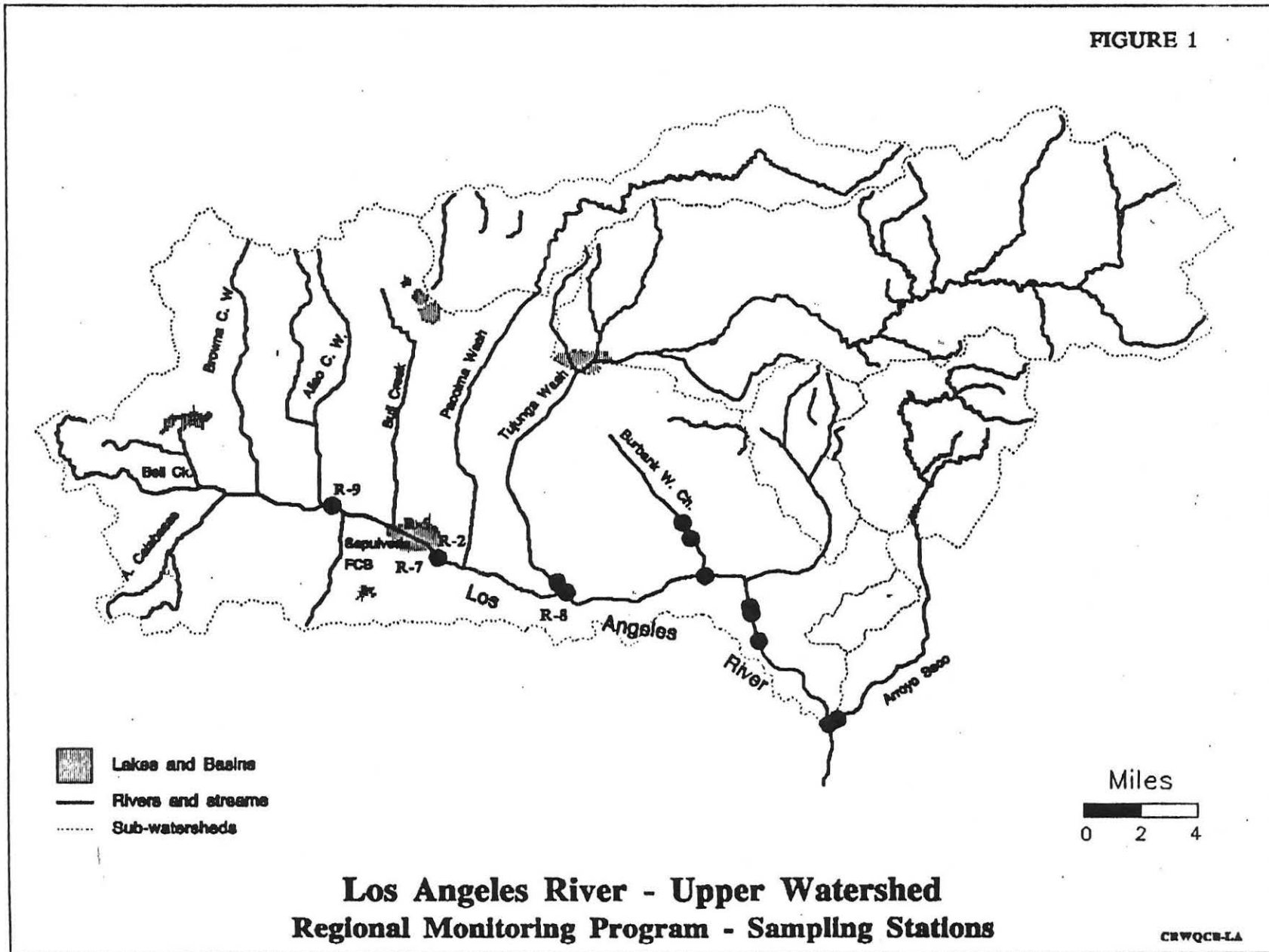


DENNIS A. DICKERSON
Executive Officer

Date: June 15, 1998

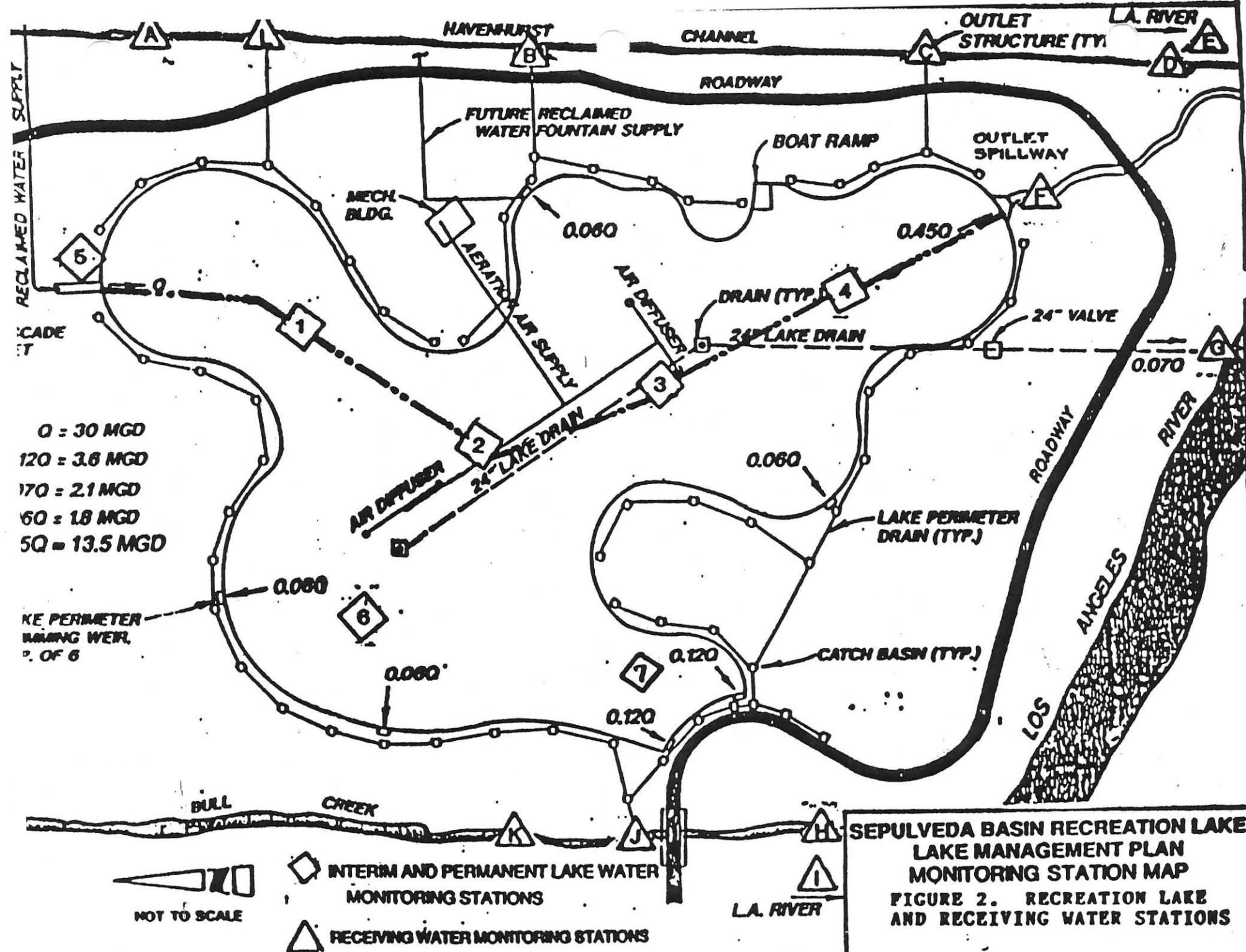
/GS

FIGURE 1

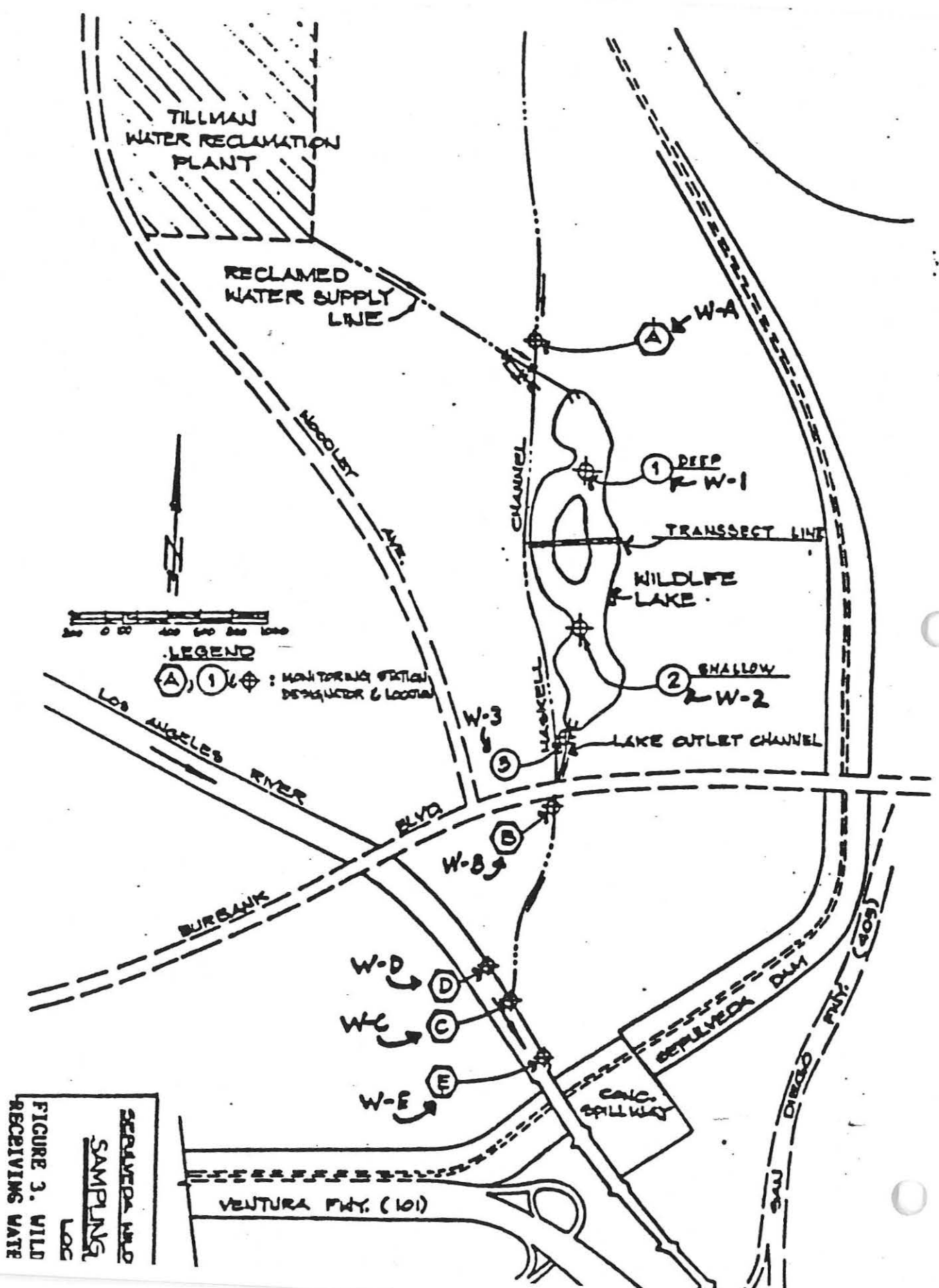


**Los Angeles River - Upper Watershed
Regional Monitoring Program - Sampling Stations**

CRWQCB-LA



**SEPULVEDA BASIN RECREATION LAKE
LAKE MANAGEMENT PLAN
MONITORING STATION MAP
FIGURE 2. RECREATION LAKE
AND RECEIVING WATER STATIONS**



SEPERATED WILD SAMPLING LOC

FIGURE 3. WILD RECEIVING WATE

**ATTACHMENT 1
POLLUTANTS METHOD DETECTION LIMITS**

A. USEPA PRIORITY POLLUTANTS	USEPA		TYPE *
	METHOD	MDL (µg/l)	
METALS AND CYANIDE			
Antimony	7062	1	NC
Arsenic	3114B	2	C
Barium	208.2	2	NC
Beryllium	210.2	0.2	C
Cadmium	200.7	4	NC
Chromium	200.7	7	NC
Cobalt	219.2	1	
Copper	200.7	8	NC
Lead	239.1	100	NC
Mercury	245.1	0.2	NC
Nickel	200.7	15	NC
Selenium	3114B	2	NC
Silver	272.1	0.2	NC
Thallium	279.2	1	NC
Zinc	200.7	2	NC
Cyanide			NC
VOLATILE COMPOUNDS			
Acrolein	603	0.6	NC
Acrylonitrile	603	0.5	C
Benzene	602	0.2	C
Bromoform	601	0.2	C
Bromodichloromethane	601	0.1	
Carbon Tetrachloride	601	0.12	C
Chlorobenzene (Monochlorobenzene)	602	0.2	NC
Chlorodibromomethane			C
Chloroethane	601	0.52	
Chloroform	601	0.05	C
Chloromethane	601	0.08	
Dibromochloromethane	601	0.08	
Dichlorobromomethane			C
Ethylbenzene	602	0.2	NC
Methylene Chloride	601	0.25	C
Methyl Bromide	601	1.15	C
Methyl Chloride	601	0.08	C
Tetrachloroethylene	601	0.03	C
Toluene	602	0.2	NC
Trichloroethylene	601	0.12	C
Vinyl Chloride	601	0.18	C
1,1-Dichloroethane	601	0.07	
1,1-Dichloroethylene	601	0.13	C
1,1,1-Trichloroethane	601	0.03	NC
1,1,2-Trichloroethane	601	0.02	C
1,1,2,2-Tetrachloroethane	601	0.03	C
1,2-Dichloroethane	601	0.02	C

* C - Carcinogen
NC - Noncarcinogen

**ATTACHMENT 1
POLLUTANTS METHOD DETECTION LIMITS**

A. USEPA PRIORITY POLLUTANTS (cont)	USEPA		TYPE *
	METHOD	MDL (ug/l)	
1,2-Dichloropropane	801	0.04	C
1,2-Dichloropropylene			
1,2-Trans-Dichloroethylene	801	0.1	NC
1,3-Dichloropropylene	801	0.34	NC
2-Chloroethylvinyl Ether	801	0.13	
ACID COMPOUNDS			
2-Chlorophenol	825	3.3	NC
Pentachlorophenol	825	3.8	C
Phenol	825	1.5	NC
2-Nitrophenol	825	3.6	
2,4-Dichlorophenol	825	2.7	NC
2,4-Dimethylphenol	825	2.7	NC
2,4-Dinitrophenol	825	4.2	NC
2,4,6-Trichlorophenol	825	2.7	NC
4-Nitrophenol	825	2.4	
4,6-Dinitro-O-Cresol (4,6-Dinitro-2-Methylphenol)			NC
4-Methylphenol (p-cresol)			NC
3-Methyl-4-Chlorophenol (P-Chloro-M-Cresol)	825	3	NC
BASE/NEUTRAL COMPOUNDS			
Acenaphthene	825	1.9	NC
Benzidine	825	4.4	C
Bis(2-Chloroethoxy)Methane	825	5.3	NC
Bis(2-Chloroethyl)Ether	825	5.7	C
Bis(2-Chloroisopropyl)Ether	825	5.7	NC
Bis(2-Ethylhexyl)Phthalate	825	2.5	C
Bis(Chloromethyl)Ether			C
Butyl Benzyl Phthalate	825	2.5	NC
Diethyl Phthalate	825	2.2	NC
Dimethyl Phthalate	825	1.6	NC
Di-N-Butyl Phthalate	825	2.5	NC
Di-N-Octyl Phthalate	825	2.5	
Fluoranthene	825	2.2	NC
Hexachlorobenzene	825	1.9	C
Hexachlorobutadiene	825	0.9	C
Hexachlorocyclopentadiene			NC
Hexachloroethane	825	1.6	C
Isophorone	825	2.2	NC
Naphthalene	825	1.6	NC
Nitrobenzene	825	1.9	NC
N-Nitrosodimethylamine	825	0.15	C
N-Nitrosodi-N-Propylamine	825		C
N-Nitrosodiphenylamine	825	1.9	C
TCDD			

* C - Carcinogen

NC - Noncarcinogen

**ATTACHMENT 1
POLLUTANTS METHOD DETECTION LIMITS**

A. USEPA PRIORITY POLLUTANTS (cont)	USEPA		TYPE *
	METHOD	MDL (µg/l)	
Total PAHS			
Acenaphthylene		1.9	C
Anthracene	825	1.9	C
Benzo(A)Anthracene	825	7.8	C
Dibenzo(A,H)Anthracene (1,2,5,6-Dibenzanthracene)	825	2.5	C
Benzo(B)Fluoranthene	825	4.8	C
Benzo(K)Fluoranthene	825	2.5	C
Benzo(GHI)Perylene (1,12-Benzoperylene)	825	4.1	C
Benzo(A)Pyrene	825	2.5	C
Chrysene	825	2.5	C
Fluorene	825	1.9	C
Indeno(1,2,3-CD)Pyrene	825	3.7	C
Phenanthrene	825	5.4	C
Pyrene	825	1.9	C
1,2-Dichlorobenzene	825	1.9	NC
1,2-Diphenylhydrazine	825		C
1,2,4-Trichlorobenzene	825	1.9	
1,3-Dichlorobenzene	825	1.9	NC
1,4-Dichlorobenzene	825	4.4	C
2-Chloronaphthalene	825	1.9	
2,4-Dinitrotoluene	825	5.7	C
2,6-Dinitrotoluene	825	1.9	
3,3-Dichlorobenzidine	825	16.5	C
4-BromoPhenyl Phenyl Ether	825	1.9	
4-ChloroPhenyl Phenyl Ether	825	4.2	
PESTICIDES AND PCBs			
4,4'-DDD	825	2.8	C
4,4'-DDE	825	5.6	C
4,4'-DDT	825	4.7	C
Aldrin	808	0.004	C
Alpha-BHC	808	0.003	C
Alpha-Endosulfan	808	0.014	NC
Beta-BHC	808	0.006	C
Beta-Endosulfan	808	0.004	NC
Chlordane	808	0.014	C
Delta-BHC	808	0.009	C
Dieldrin	808	0.002	C
Endosulfan Sulfate	808	0.068	NC
Endrin	808	0.006	NC
Endrin Aldehyde	808	0.023	NC
Gamma-BHC (Lindane)	808	0.004	
Heptachlor	808	0.003	C
Heptachlor Epoxide	808	0.083	C

* C - Carcinogen
NC - Noncarcinogen

**ATTACHMENT 1
POLLUTANTS METHOD DETECTION LIMITS**

A. USEPA PRIORITY POLLUTANTS (cont)	USEPA		TYPE *
	METHOD	MDL (µg/l)	
Total PCBs		65	
PCB-1016			C
PCB-1221			C
PCB-1232			C
PCB-1242	808	0.065	C
PCB-1248			C
PCB-1254			C
PCB-1260			C
Toxaphene		240	C

B. MISCELLANEOUS POLLUTANTS	USEPA		TYPE *
	METHOD	MDL (µg/l)	
2,3,7,8-Tetrachlorodibenzo-P-Dioxin			
Asbestos			
Ethylene Dibromide			
1,2-Dibromo-3-Chloropropane			
2,4,5-TP			
Simazine			
2,4-D			
Methoxychlor			
1,1,2-Trichloro-1,2,2-Trifluoroethane			
Trichlorofluoromethane			
Xylene			
Bentazon			
Carbofuran			
Barium			
Molinate			
Atrazine			
1,2-Cis-Dichloroethylene			
Thiobencarb			
Glyphosate			
Acetone			
Molybdenum	246.2	1	
Vanadium	286.2	4	
Aluminum	202.2	3	

* C - Carcinogen
NC - Noncarcinogen

PRIORITY POLLUTANTS

Metals

Antimony
Arsenic
Beryllium
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

Miscellaneous

Cyanide
Asbestos (only if specifically required)

Pesticides & PCBs

Aldrin
Chlordane
Dieldrin
4,4'-DDT
4,4'-DDE
4,4'-DDD
Alpha-endosulfan
Beta-endosulfan
Endosulfan sulfate
Endrin
Endrin aldehyde
Heptachlor
Heptachlor epoxide
Alpha-BHC
Beta-BHC
Gamma-BHC
Delta-BHC
Toxaphene
PCB 1016
PCB 1221
PCB 1232
PCB 1242
PCB 1248
PCB 1254
PCB 1260

Base/Neutral Extractibles

Acenaphthene
Benzidine
1,2,4-trichlorobenzene
Hexachlorobenzene
Hexachloroethane
Bis(2-chloroethyl) ether
2-chloronaphthalene
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3'-dichlorobenzidine
2,4-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenylhydrazine
Fluoranthene
4-chlorophenyl phenyl ether
4-bromophenyl phenyl ether
Bis(2-chloroisopropyl) ether
Bis(2-chloroethoxy) methane
Hexachlorobutadiene
Hexachlorocyclopentadiene
Isophorone
Naphthalene
Nitrobenzene
N-nitrosodimethylamine
N-nitrosodi-n-propylamine
N-nitrosodiphenylamine
Bis (2-ethylhexyl) phthalate
Butyl benzyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Diethyl phthalate
Dimethyl phthalate
Benzo(a) anthracene
Benzo(a) pyrene
Benzo(b) fluoranthene
Benzo(k) fluoranthene
Chrysene
Acenaphthylene
Anthracene
1,12-benzoperylene
Fluorene
Phenanthrene
1,2,5,6-dibenzanthracene
Indeno (1,2,3-cd) pyrene
Pyrene
TCDD

Acid Extractibles

2,4,6-trichlorophenol
P-chloro-m-cresol
2-chlorophenol
2,4-dichlorophenol
2,4-dimethylphenol
2-nitrophenol
4-nitrophenol
2,4-dinitrophenol
4,6-dinitro-o-cresol
Pentachlorophenol
Phenol

Volatile Organics

Acrolein
Acrylonitrile
Benzene
Carbon tetrachloride
Chlorobenzene
1,2-dichloroethane
1,1,1-trichloroethane
1,1-dichloroethane
1,1,2-trichloroethane
1,1,2,2-tetrachloroethane
Chloroethane
Chloroform
1,1-dichloroethylene
1,2-trans-dichloroethylene
1,2-dichloropropane
1,3-dichloropropylene
Ethylbenzene
Methylene chloride
Methyl chloride
Methyl bromide
Bromoform
Bromodichloromethane
Dibromochloromethane
Tetrachloroethylene
Toluene
Trichloroethylene
Vinyl chloride
2-chloroethyl vinyl ether

