



Pete Wilson  
Governor

June 26, 1997

Cal/EPA

Los Angeles  
Regional Water  
Quality Control  
Board

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**WASTE DISCHARGE REQUIREMENTS - COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY, JOINT WATER POLLUTION CONTROL PLANT (NPDES PERMIT NO. CA0053813)**

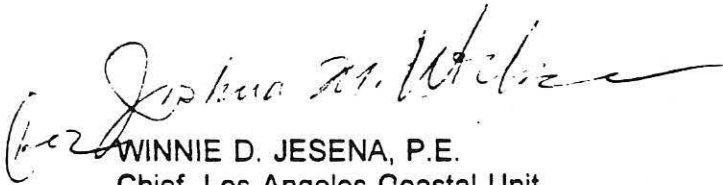
Our letter dated May 16, 1997, transmitted tentative requirements for your discharge of wastes from the Joint Water Pollution Control Plant to the Pacific Ocean.

Pursuant to Division 7 of the California Water Code, this Regional Board at a public hearing held on June 16, 1997, reviewed the tentative requirements, considered all comments received, and adopted Order No. 97-090 (copy attached) for your waste discharge requirements. Please note the changes made by the Board during the hearing regarding the chlorination study (Finding No. 30, page 9, and Provision No. 5, page 22). Order No. 97-090 serves as your permit under the National Pollutant Discharge Elimination System (NPDES).

You are required to implement the monitoring program on the effective date of this Order. Please note that any monitoring report due under previous Monitoring and Reporting Program is still required and must be submitted by the due date.

Please reference all technical and monitoring reports to our Compliance File No. 1758 and submit them to the attention of our **Data and Information Management Unit**. We would appreciate it if you would not combine other reports with your monitoring reports but would submit each type of report as a separate document.

If you have any questions, please call Mazhar Ali at (213) 266-7666.

  
WINNIE D. JESENA, P.E.  
Chief, Los Angeles Coastal Unit

Enclosures

cc: See attached mailing list

MAILING LIST

Environmental Protection Agency, Region IX, Permit Section (WTR-5)  
U.S. Army Corps of Engineers  
U.S. Fish and Wildlife Services, Division of Ecological Services  
NOAA, National Marine Fisheries Service  
Jorge Leon, Office of Chief Counsel, State Water Resources Control Board (SWRCB)  
John Youngerman, Division of Water Quality, SWRCB  
California Department of Fish and Game, Marine Resources, Region 5  
California Coastal Commission, South Coast District  
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Los Angeles County, Department of Public Works, Waste Management Division  
Jack Petralia, Department of Health Services, Los Angeles County  
Los Angeles County, Lifeguard Association  
City of Los Angeles, Bureau of Engineering, Wastewater System Engineering Division  
City of Los Angeles, Bureau of Sanitation, Industrial Waste Management  
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Water Replenishment District of Southern California  
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City of Hermosa Beach, Department of Public Works  
City of Manhattan Beach, Department of Public Works  
City of Palos Verdes Estate, Department of Public Works  
City of Rancho Palos Verdes, Department of Public Works  
City of Redondo Beach, Department of Public Works  
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Joan Hartman, American Oceans Campaign  
Mark Gold, Heal the Bay  
Mel Nutter, League for Coastal Protection  
Marina Del Rey Anglers  
Gail Ruderman Feuer, Natural Resources Defense Council  
Terry Tamminen, Santa Monica BayKeeper  
Sierra Club  
Surfriders Foundation  
Bill Gibson, L.A. Weekly



**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(JOINT WATER POLLUTION CONTROL PLANT)**

**ORDER NO. 97-090**

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STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

ORDER NO. 97-090  
NPDES NO. CA0053813

WASTE DISCHARGE REQUIREMENTS  
FOR  
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(JOINT WATER POLLUTION CONTROL PLANT)

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

Regulation of Discharge

1. The County Sanitation Districts of Los Angeles County (CSDLAC) operates the Joint Water Pollution Control Plant (JWPCP), a regional wastewater treatment facility, located at 24501 South Figueroa Street in Carson, California. The plant serves about 2.6 million people and treats municipal and industrial wastewater, as well as sludge from other CSDLAC wastewater treatment plants located upstream of JWPCP. Figure A is the location and service area map of JWPCP.
2. JWPCP discharges a blend of primary and secondary treated wastewater to the Pacific Ocean, a water of the United States, at Whites Point, off the Palos Verdes Peninsula. The discharge is regulated under waste discharge requirements contained in Order No. 91-112 adopted by this Regional Board on October 28, 1991. Order No. 91-112 serves as a permit under the National Pollutant Discharge Elimination System (NPDES) [No. CA0053813]. Order No. 91-112, as with previous permits regulating the discharge from JWPCP, contains full secondary treatment requirements pursuant to §301(b) of the Federal Clean Water Act.
3. Since 1979, CSDLAC had been requesting a variance from secondary treatment requirements for discharges from JWPCP pursuant to Clean Water Act §301(h). The variance request underwent several modifications and on December 21, 1990, the U. S. Environmental Protection Agency (USEPA) issued a final decision denying the variance request.
4. On January 6, 1992, USEPA Region IX and the Regional Board filed in federal court a complaint against CSDLAC for civil penalty and injunctive relief for failure to provide full secondary treatment for its discharge from JWPCP and for raw sewage spills from the collection system. The case was settled and the consent decree was entered into federal court records on June 8, 1994 [No. 92 0061 RG (JRx)]. The consent decree primarily requires CSDLAC to construct additional secondary treatment facilities and achieve

compliance with full secondary treatment by December 31, 2002.

5. While the §301(h) variance request was being processed and until adequate secondary treatment facilities are constructed, JWPCP discharge cannot meet the full secondary treatment requirements. Therefore, on November 28, 1988, this Regional Board issued Cease and Desist Order No. 88-134 that contains interim limits. These interim limits were incorporated into the consent decree and in this Order.
6. CSDLAC has timely filed a report of waste discharge for reissuance of waste discharge requirements and NPDES permit for JWPCP discharges pursuant to 40 Code of Federal Regulations (CFR) §122.21(d) and California Code of Regulations (CCR), Title 23 §2235.4.

#### Description of Facility and Discharge Outfalls

7. JWPCP is part of a Joint Outfall System with six upstream water reclamation plants - La Cañada, Whittier Narrows, San Jose Creek, Pomona, Los Coyotes and Long Beach. It treats municipal (about 85%) and industrial (about 15%) wastewater. The sludge generated from the upstream plants are returned to the joint outfall trunk sewers which conveys the sludge to JWPCP for further treatment. JWPCP has a dry weather average design treatment capacity of 385 million gallons per day (mgd) and a peak design capacity of 540 mgd. For the past five years (1992 - 1996) flow to the plant has averaged 330 mgd.
8. Figure B shows the flow diagram of the treatment system at JWPCP. Treatment includes bar screening, grit removal, and primary sedimentation. To facilitate solids separation in the sedimentation tanks, polymer is added at the grit chambers. Effluent from the sedimentation tanks separates into two routes - the advanced primary effluent route and the secondary effluent route. In the advanced primary route, the primary effluent is passed through screens and sent to the primary effluent forebay where it is chlorinated with calcium hypochlorite before it is pumped into the outfall manifold.
9. In the secondary effluent route, the primary effluent is biologically treated in pure oxygen activated sludge reactors, clarified, chlorinated and pumped into the outfall manifold, where it mixes with the advanced primary effluent before discharge to the ocean. JWPCP at present provides secondary treatment for 200 mgd of wastewater (60 % of total effluent).
10. Solid fractions recovered from the wastewater treatment processes include grit, advanced primary screenings, primary sludge and skimmings, thickened waste activated sludge, digested sludge screenings and digester cleaning solids. The fine solids (grit, advanced primary screenings, digested sludge screenings, digester cleaning solids) which are primarily inorganic materials are hauled away to landfill. The remaining solid fractions

(primary sludge and skimmings, thickened waste activated sludge) are anaerobically digested onsite. The digested solids are screened, and dewatered using scroll centrifuges. The dewatered cake containing about 25% solids (biosolids) are applied to land and composted for use as soil amendment. Biosolids that are not reused are hauled to CSDLAC's Puente Hill Landfill.

Digester gas (containing about 65% methane), produced from anaerobic digestion of sludge, is used onsite to generate electric power, as fuel for internal combustion engines that drive the effluent pumps, as fuel for producing process steam used in digester heating and also as fuel for supplemental digester heating. The use of digester gas allows JWPCP to be self-sufficient in its energy needs. Standby flares are maintained to dispose of surplus gas.

11. JWPCP discharges a blend of advanced primary (about 40%) and secondary (about 60%) effluents. From the plant after chlorination, the effluents travel about 6.5 miles through tunnels and mix at the outfall manifold before discharged to the Pacific Ocean, at Whites Point off the Palos Verdes Peninsula. The outfalls are described as follows:

<u>Discharge Serial No.</u>	<u>Description</u>
001	Latitude - 33° 41' 52" Longitude - 118° 19' 27"  120-inch ocean outfall at about 12,000 feet due south of shoreline off Whites Point, San Pedro and about 200 feet below the ocean surface. This outfall carries about 65% of the effluent.
002	Latitude - 33° 42' 02" Longitude - 118° 20' 14"  90-inch ocean outfall at about 10,400 feet offshore southwest of Whites Point, San Pedro, and about 200 feet below the ocean surface. This outfall carries about 35% of the effluent.

There are other 12 discharge points (Discharge Serial Nos. 003 through 014) which are only used for emergency bypass and/or hydraulic relief of the plant. Locations and descriptions of these outfalls are given in Attachment 1.

Waste Discharge Requirements and their Bases

12. On June 13, 1994, this Regional Board adopted a revised basin plan, *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*. The plan incorporates by reference the State Water Resources Control Board's (State Water Board) Water Quality Control Plans and policies on ocean waters [*Water Quality Control Plan for Ocean Waters in California*, March 22, 1990], temperature [*Water Quality Control Plan for Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California*, amended September 18, 1975] and antidegradation [*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Board Resolution No. 68-16, October 28, 1968].
13. JWPCP discharges into the Palos Verdes Shelf which is part of the Palos Verdes Peninsula watershed. The Basin Plan contains water quality objectives for and lists the following beneficial uses for the receiving waters in the Palos Verdes Peninsula:

Point Vicente Beach, Royal Palms Beach, Whites Point County Beach (Hydrologic Unit 405.11)

Potential: spawning, reproduction, and/or early development of fish;  
Existing: navigation, water contact recreation, non-contact water recreation, ocean commercial and sport fishing, preservation of rare and endangered species, marine habitat, and shellfish harvesting.

Nearshore Zone

Existing: industrial service supply, navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, wild habitat, preservation of biological habitats, rare, threatened, or endangered species, migration of aquatic organisms, spawning, and shellfish harvesting;

Offshore Zone

Existing: industrial service supply, navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, wild habitat, migration of aquatic organisms, and spawning, reproduction, and/or early development, rare threatened or endangered species, and shellfish harvesting.

14. The 1996 Water Quality Assessment listed "aquatic life" and "fish consumption" as the beneficial use categories which are impaired in the Santa Monica Bay Nearshore and Offshore Zone, which includes the Palos Verdes shelf. Impairment of aquatic life was based on sediment contamination (cadmium, copper, lead, mercury, nickel, zinc, PCBs, DDT, chlordane, PAHs), bioaccumulation by marine organisms (silver, chromium, lead,

DDT, PCBs), and sediment toxicity. Impairment of seafood consumption was based on the health advisories issued by the State Office of Environmental Health Hazard Assessment restricting human consumption of certain fish species from some areas of Santa Monica Bay.

15. The receiving waters in the Palos Verdes Peninsula watershed are impacted primarily because of elevated concentrations of contaminants such as PCBs and DDT. From 1947 to 1983, Montrose Chemical Corporation of California, Inc. ("Montrose") operated a DDT manufacturing plant in Los Angeles County which discharged wastewater containing significant concentrations of DDT to the Joint Outfall System and conveyed to JWPCP. The DDT was ultimately discharged to the ocean through the White's Point outfall. PCB's were also discharged from the White's Point ocean outfall. Historically, PCBs entered the Joint Outfall System as the result of discharges from several sources in the greater Los Angeles area.

The highest concentrations of DDT and PCB are in a layer of low density sewage-derived sediments around the main sewer outfalls at White's Point on the Palos Verdes Shelf. Studies by the United States Geological Survey (USGS) in 1992 and 1993 have shown this layer of contaminated sewage sediments is about 2 inches to 2 feet thick and covers an area of more than 15 square miles. The contaminant concentrations in these sediments range from approximately 1 to 200 ppm for DDT and between 0.5 and 15 ppm for PCBs, forming a total mass of DDTs exceeding 100 metric tons and PCBs exceeding 10 metric tons. According to the USGS studies, at least half of the present mass of DDT is expected to remain in the sediment of the Palos Verdes Shelf through the year 2100.

Sediment contaminants affect bottom dwelling organisms and other sediment-associated organisms, the water column, and the food web. Certain fish from the Palos Verdes Shelf are contaminated with high levels of DDT and PCBs. Continuous exposure of these hazardous substance to the food web results in risks to human health. White croaker was found to be the most contaminated fish from this region. Other species found to be relatively contaminated are California corbina, queenfish, surf perches, and California scorpionfish.

USEPA has considered the DDT/PCB contaminated area as a superfund site. It has investigated the contaminated area off the Palos Verdes Shelf and is investigating the feasibility of various technologies for remediating the contaminated sediments.

16. This Regional Board has implemented a Watershed Management Approach to address water quality protection in the region. The objective is to provide a comprehensive and integrated strategy towards water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically-defined drainage basin or watershed. It emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed



to achieve the greatest environmental improvements with the resources available. This Order supports the implementation of this approach.

17. According to this Regional Board's watershed initiative framework, the Santa Monica Bay Watershed Management Area is the targeted watershed for fiscal year 1996-97 and includes the Santa Monica Bay and the land area that drains naturally into the Bay. Santa Monica Bay extends from the Los Angeles/Ventura County line to the northwest near Point Dume to Point Fermin on Palos Verdes Peninsula to the southwest<sup>1</sup>. JWPCP discharges its effluent to the Palos Verdes Peninsula sub-watershed, which extends from the southern boundary of the City of Torrance to Point Fermin along the coastline.
18. The Santa Monica Bay Restoration Project (SMBRP) developed the Bay Restoration Plan that serves as a blueprint for the restoration and enhancement of the Bay. The Regional Board plays a leading role in the implementation of the plan. Three of the proposed priorities of the plan are reduction of pollutants of concern at the source (which includes municipal wastewater treatment plants), attainment of full secondary treatment at JWPCP and the City of Los Angeles' Hyperion Treatment Plant, and implementation of the mass emission approach.
19. The 1996 State Water Resources Control Board's (SWRCB) Water Quality Assessment Report<sup>2</sup> and the Bay Restoration Plan identified the following as pollutants of concern for Santa Monica Bay: dichloro-diphenyl trichloroethane (DDT), polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), chlordane, tributyltin (TBT), heavy metals (cadmium, chromium, copper, lead, nickel, silver, zinc), bacteria/viruses, total suspended solids, nutrients, chlorine, oxygen demand, oil and grease, and trash.
20. On March 22, 1990, the State Water Resources Control Board adopted a revised Water Quality Control Plan for the Ocean Waters of California (Ocean Plan). The revised plan contains water quality objectives for the coastal waters of California. This Order includes effluent and receiving water limitations, prohibitions, and provisions which implements the objectives of the Plan. The numerical effluent limitations were calculated using the State Board calculated minimum dilution ratio for JWPCP's outfall system of 166 parts sea water to one part effluent.
21. For constituents with performance level which are orders-of-magnitude lower than calculated limits based on Ocean Plan objectives, and which have a very low probability

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<sup>1</sup> *Santa Monica Bay: State of the Watershed Report*, California Regional Water Quality Control Board, Los Angeles Region, May 1997.

<sup>2</sup> *California 305(b) Report on Water Quality*, State Water Resources Control Board, August 1996.



of causing or contributing to excursions in water quality standards, no numerical limits are prescribed; instead a narrative limit to comply with all Ocean Plan objectives is provided.

22. General Provision B of the Ocean Plan allows the Regional Board to establish more stringent water quality objectives and effluent quality requirements than those set forth in the Ocean Plan as necessary for the protection of the beneficial uses of ocean waters. Pursuant to this provision, some of the requirements contained in Order No. 91-112 were based on plant performance.
23. Since 1994, the Regional Board has implemented the Water Quality Task Force recommendation on the use of performance goals rather than performance-based limits, when appropriate.<sup>3</sup> The use of performance goals is intended to minimize pollutant loadings, at the same time maintain the incentive for future voluntary improvement of water quality wherever feasible without fear of more stringent limits based on improved performance. To implement this approach, the performance-based limits in Order 91-112 are converted into performance goals in this Order.

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. However, this approach 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.

24. The performance goals prescribed in this Order are based on the following:
  - a. For pollutants which have been routinely detected in the effluent, the performance goals are statistically set at the 95<sup>th</sup> percentile of the January 1992 through September 1996 performance data. Therefore, it is expected that one sample in twenty may exceed the goal in the long-term.
  - b. For other pollutants which monitoring data has consistently shown nondetectable levels, or which have been occasionally detected at levels less than the Practical Quantitation Levels (PQL), and have been determined not to have reasonable potential to cause or contribute to exceedance of water quality objectives, no performance goals are prescribed. However, these pollutants will be monitored at appropriate frequencies.

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<sup>3</sup> *Working Together for an Affordable Clean Water Environment*, A final report presented to the California Water Quality Control Board, Los Angeles Region by Water Quality Advisory Task force, September 30, 1993.

25. One of the action items in the Santa Monica Bay Restoration Plan (BRP) is the implementation of the Mass Emission Approach. The objective is to reduce mass emissions of pollutants that have detectable inputs into the Bay and can accumulate in the marine environment. It will complement existing concentration-based regulatory system while sediment quality objectives are being formulated. The BRP identified copper, lead, silver, and zinc to have interim mass emission performance caps. Similar to the concentration-based performance goals, the mass emission performance caps are not enforceable limitations. The interim mass emission caps for the four metals contained in this Order were calculated using the average mass emission for 1992-96 adjusted to the design flow.
26. The toluene limit of 50 µg/L in Order No. 91-112 was based on Practical Quantitation Level (PQL) approach. Only seven detectable values were available at the time of drafting this Order and the data was insufficient to perform a statistical analysis. CSDLAC has monitored toluene on a quarterly basis since issuance of Order No. 91-112. The 95% confidence level of performance from 1992 to 1996 is 130 µg/L. This value is used as the monthly average performance goal.
27. On September 13, 1996, the South Coast Air Quality Management District (AQMD) adopted amendments to Rule 1171. The amendments require automotive repair and maintenance facilities to replace the use of petroleum-based solvents with aqueous cleaning systems containing little or no volatile organic compounds (VOCs). The rule requires a transition period up to January 1, 1999. The amended rule would reduce VOC emission to the air (estimated at 20 tons per day in the District), improve workspace air quality, and reduce site contamination from improper storage of organic solvents. However, implementation of the rule is a potential source of pollutants to publicly-owned treatment works (POTWs) and discharges to receiving waters. The pollutants of concern based on preliminary sampling program results are toluene, perchloroethylene, methylene blue active substances (detergents), and some heavy metals. Currently, most spent petroleum based solvent are collected and recycled by the vendor. Aqueous cleaners have been advertised as sewerable. However, spent aqueous baths often become contaminated with hazardous material during the cleaning process and may impact POTW performance and effluent quality.

AQMD will implement mitigation measures through public outreach/education to minimize cross-over media pollution, and to integrate pollution prevention and best management practices for facilities affected by the rule. POTWs will make best effort to minimize the impact of the rule through source reduction including education and enhanced pretreatment, and/or improved treatment removal efficiencies. After the impacts have been quantified and other mitigation measures have been demonstrated to be technically and/or economically infeasible, it may be necessary for POTWs to request adjustments in their performance goals.

28. Effluent limitations, toxic and pretreatment effluent standards, and ocean discharge criteria established pursuant to Sections 208(b), 301, 302, 303(d), 304, 307, 403, and 405 of the Clean Water Act and amendments thereto are applicable to the discharge.
29. Pursuant to Section 402 (p) of the Clean Water Act and 40 CFR Parts 122, 123 and 124, the State Water Board adopted general NPDES permits to regulate stormwater discharges associated with industrial activity (State Water Board Order No. 97-03-DWQ adopted on April 17, 1997) and construction activity (State Board Order No. 92-08-DWQ adopted on August 20, 1992). JWPCP is covered under these general permits.
30. This Order prescribes receiving water bacteriological standards for recreational and shellfish harvesting beneficial uses. To meet the standards, JWPCP effluent is chlorinated using calcium hypochlorite solution before leaving the plant. The chlorinated effluent travels between 2 to 3 hours through the 6 miles of tunnels to the outfall manifold where residual chlorine is below detection. The amount of chlorine used is dependent upon recent bacteriological results from shore and nearshore stations around Palos Verdes. In 1996, 8,471 tons of chlorine were used for disinfection. The impact of chlorination products on the environment has not been evaluated. It is impractical to obtain representative samples at the manifold for halomethanes and toxicity testing.

This Order requires CSDLAC to conduct a special study to investigate potential toxic effects associated with formation of chlorinated compounds from chlorination of the effluent. CSDLAC will perform parallel chronic toxicity testing with chlorinated and unchlorinated effluent. If the study indicates a significant difference in toxicity between the unchlorinated and chlorinated effluents, this Order will be reopened for the Board to consider requiring CSDLAC to perform a chlorination study to optimize chlorine usage.

31. The requirements contained in this Order are based on the Basin Plan, Ocean Plan, other federal and state plans and policies, plant performance, and best engineering judgment, and are intended to protect the beneficial uses of the receiving waters.
32. 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 Water Code §13389.

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

The Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements. All orders referred to above and records of hearings and testimony therein are included herein by reference.

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

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

A. DISCHARGE REQUIREMENTS

I. DISCHARGE LIMITATIONS AND PERFORMANCE GOALS

1. The effluent discharge limitations and performance goal values for Discharge Serial Nos. 001, 002, 003, and 004 are given below. The discharge of an effluent with constituents in excess of the discharge limitation is prohibited. For performance goals, any exceedance of its value shall trigger an investigation by CSDLAC on the cause of the exceedance. If the exceedance persists in two successive monitoring periods (monthly/quarterly), CSDLAC will investigate the exceedance and submit a written report to the Regional Board with the description of the problem, and propose corrective measures, if necessary.

(a). Major Wastewater Constituents

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS<sup>(1)(2)</sup></u>			<u>EFFLUENT QUALITY</u>
		<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum<sup>(3)</sup></u>	<u>PERFORMANCE GOALS<sup>(18)</sup></u>
					<u>Monthly AVERAGE</u>
BOD <sub>5</sub> 20°C <sup>(4)</sup>	mg/l	30	45	---	106 <sup>(19)</sup>
	kg/day	43,700	65,600	---	
	lbs/day	96,400	145,000	---	
Suspended <sup>(4)</sup> Solids	mg/l	30	45	---	77 <sup>(19)</sup>
	kg/day	43,700	65,600	---	
	lbs/day	96,400	145,000	---	
Settleable <sup>(4)</sup> Solids	ml/l	0.5	0.75	1.5	---
Turbidity	NTU	75	100	225	---
Acute Toxicity	TUa	1.5	2	2.5	---

(b). Toxic Materials

i. Marine Aquatic Life Toxicants

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS</u> <sup>[2][5]</sup>			<u>EFFLUENT QUALITY</u>
		<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u> <sup>[3]</sup>	<u>PERFORMANCE GOALS</u> <sup>[18]</sup>
					<u>Monthly Average</u>
Arsenic	µg/l	[6]			4 <sup>[19]</sup>
Cadmium	µg/l	167	668	1,670	2 <sup>[19]</sup>
	kg/day	250	1,000		
	lbs/day	550	2,200		
Chromium (hexavalent) <sup>[7]</sup>	µg/l	334	1,336	3,340	[23]
	kg/day	487	1,948		
	lbs/day	1,070	4,280		
Copper	µg/l	169	676	1,690	[20]
	kg/day	246	984		
	lbs/day	542	2,168		
Mercury	µg/l	6.6	26.4	66	[23]
	kg/day	9.4	37.6		
	lbs/day	21	84		
Nickel	µg/l	835	3340	8,350	66 <sup>[19]</sup>
	kg/day	1,214	4,856		
	lbs/day	2,671	10,684		
Selenium	µg/l	[6]			23 <sup>[19]</sup>
Silver	µg/l	91	364	910	[20]
	kg/day	132	528		
	lbs/day	291	1,164		
Zinc	µg/l	2,012	8,048	20,120	[20]
	kg/day	2,931	11,724		
	lbs/day	6,448	25,792		

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS<sup>[2][5]</sup></u>			<u>EFFLUENT QUALITY</u>
		<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum<sup>[3]</sup></u>	<u>PERFORMANCE GOALS<sup>[18]</sup></u>
					<u>Monthly Average</u>
Cyanide	µg/l	167	668	1,670	20 <sup>[19]</sup>
	kg/day	244	976		
	lbs/day	537	2,148		
Total Residual Chlorine	µg/l	334	1336	10,020	300 <sup>[19]</sup>
	kg/day	486	1,946		
	lbs/day	1,070	4,280		
Ammonia (as N)	mg/l	<sup>[6]</sup>			40 <sup>[21]</sup>
Phenolic Compounds (Non-Chlorinated)	µg/l	<sup>[6]</sup>			35 <sup>[21]</sup>
Phenolic Compounds (Chlorinated)	µg/l	167	668	1,670	16 <sup>[21]</sup>
	kg/day	244	976		
	lbs/day	537	2,148		
Endosulfan	ng/l	1,500 <sup>[8]</sup>	6,000	15,000	[22]
	kg/day	2.2	8.8		
	lbs/day	4.8	19.2		
HCH <sup>[9]</sup>	ng/l	700 <sup>[8]</sup>	2,800	7,000	[22]
	kg/day	1	4		
	lbs/day	2.2	8.8		
Endrin	ng/l	400 <sup>[8]</sup>	1,600	4,000	[22]
	kg/day	0.6	2.4		
	lbs/day	1.3	5.2		
Chronic Toxicity <sup>[10]</sup>	TUc			167	---

ii. Non-Carcinogens

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS<sup>[2][5]</sup></u>	<u>EFFLUENT QUALITY PERFORMANCE GOALS<sup>[19]</sup></u>
		<u>Monthly Average</u>	<u>Monthly Average</u>
Antimony	µg/l	[6]	26 <sup>[19]</sup>
Diethyl phthalate	µg/l	[6]	7 <sup>[19]</sup>
Ethylbenzene	µg/l	[6]	9 <sup>[19]</sup>
Nitrobenzene	µg/l	819	[23]
Toluene	µg/l	[6]	130 <sup>[19]</sup>
Tributyltin	ng/l	233 <sup>[8]</sup>	[22]
1,1,1-Trichloroethane	µg/l	[6]	31 <sup>[19]</sup>

iii. Carcinogens

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS<sup>[2][5]</sup></u>	<u>EFFLUENT QUALITY PERFORMANCE GOALS<sup>[18]</sup></u>
		<u>30-day Average</u>	<u>30-day Average</u>
Acrylonitrile	µg/l	17	[23]
Aldrin	ng/l	4 <sup>[8]</sup>	[22]
Benzene	µg/l	985	71 <sup>[19]</sup>
Benzidine	ng/l	12 <sup>[8]</sup>	[22]
Beryllium	µg/l	5.5	3 <sup>[19]</sup>
Bis(2-chloroethyl)-ether	µg/l	7.5	[23]
Bis(2-ethylhexyl)-phthalate	µg/l	585	16 <sup>[19]</sup>



<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS<sup>[2],[5]</sup></u>		<u>EFFLUENT QUALITY</u>
		<u>Monthly Average</u>		<u>PERFORMANCE GOALS<sup>[18]</sup></u>
				<u>Monthly Average</u>
Carbon tetrachloride	µg/l	151		[23]
Chlordane <sup>[11]</sup>	ng/l	4 <sup>[8]</sup>		[22]
Chloroform	µg/l	[6]		24 <sup>[19]</sup>
DDT <sup>[12]</sup>	ng/l	29 <sup>[8]</sup>		[22]
3,3-Dichloro-benzidine	ng/l	1,353 <sup>[8]</sup>		[22]
1,2-Dichloroethane	µg/l	22		[23]
Dichloromethane	µg/l	75		20 <sup>[19]</sup>
Dieldrin	ng/l	7 <sup>[8]</sup>		[22]
1,2-Diphenyl-hydrazine	µg/l	27		[23]
Halomethanes <sup>[13]</sup>	µg/l	[6]		2 <sup>[19]</sup>
Heptachlor <sup>[14]</sup>	ng/l	120 <sup>[8]</sup>		[22]
Hexachloro-benzene	ng/l	35 <sup>[8]</sup>		[22]
PAHs <sup>[15]</sup>	ng/l	1,470 <sup>[8]</sup>		[22]
PCBs <sup>[16]</sup>	ng/l	3 <sup>[8]</sup>		[22]
TCDD equivalents <sup>[17]</sup>	pg/l	0.65 <sup>[8]</sup>		[22]
Tetrachloroethylene	µg/l	[6]		21 <sup>[19]</sup>

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS</u> <sup>[2],[5]</sup>	<u>EFFLUENT QUALITY PERFORMANCE GOALS</u> <sup>[18]</sup>
		<u>30-day Average</u>	<u>30-day Average</u>
Toxaphene	ng/l	35 <sup>[8]</sup>	[22]
2,4,6-Trichlorophenol	µg/l	49	12 <sup>[19]</sup>

Footnotes for Effluent Limitations

- [1] The daily mass emission calculations are based on the average design flow rate of 385 million gallons per day (mgd).
- [2] All analytical data shall be reported uncensored with detection limits and quantitation limits identified. Compliance will be determined using appropriate statistical methods to evaluate multiple samples.
- [3] The daily maximum effluent concentration limit shall apply to flow-weighted 24-hour composite samples.
- [4] Until December 31, 2002, CSDLAC shall comply with the interim limits set forth in the Board Cease and Desist Order No. 88-134 and Consent Decree No. 92 0061 RG (JRx).
- [5] Effluent Limitations for these constituents are based on Ocean Plan objectives using an initial dilution ratio of 1 part effluent to 166 parts of seawater.
- [6] The calculated limits based on Ocean Plan objectives are orders-of-magnitude higher than the prescribed performance goal values, therefore, no numerical limits are prescribed.
- [7] The discharger may at its option meet this limitation as a Total Chromium limitation.
- [8] These constituents have calculated numerical limits (based on the Ocean Plan) which are below the Method Detection Limits (MDL). Compliance shall be determined based on Practical Quantitation Level (PQL). Published values for MDLs and PQLs should be used except where revised MDLs and PQLs are available from recent laboratory performance evaluations, in which case the revised MDLs and PQLs should be used. If performance PQLs are not available then it shall be determined by multiplying the method detection limit with the Ocean Plan factors (5 for carcinogens and 10 for non-carcinogens). All analytical data shall be reported uncensored with detection limits and practical quantitation levels (PQLs) identified.
- [9] HCH means the sum of the alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
- [10] a. Chronic Toxicity Units (TUc)
 
$$TUc = \frac{100}{NOEL}$$
- b. No Observed Effect Level (NOEL)
 

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Appendix II of the California Ocean Plan adopted and effective March 22, 1990.

- [11] Sum of chlordane-alpha, chlordene-gamma, chlordene-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma and oxychlordane.
- [12] Sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.
- [13] Sum of bromoform, bromomethane (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.
- [14] Sum of heptachlor and heptachlor epoxide
- [15] Sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.
- [16] 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.
- [17] Sum of the concentration of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below:

<u>Isomer Group</u>	<u>Toxicity Equivalence Factor</u>
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
2,3,7,8-hexa CDFs	0.1
2,3,7,8-hepta CDFs	0.01
octa CDF	0.001

- [18] The performance goals are based upon the actual performance of the JWPCP and are specified only as an indication of the treatment efficiency of the facility. They are not considered as limitations or standards for the regulation of the treatment facility. CSDLAC shall make best efforts to maintain effluent quality performance goals. The Executive Officer may modify any of the performance goals if the CSDLAC requests and has demonstrated that the change is warranted.
- [19] Numerical Effluent Quality Performance Goals were derived statistically using data in Discharge Monitoring Reports for the period January 1992 to September 1996. The discharge performance goal was set at the 95th percentile (Upper Confidence Limit) using the formula,

$$\text{Limit} = \bar{X} + [t(1, \alpha 0.05), v] * S_x$$

where,

X is the sample mean,

[t(1,α0.05),v] is the one tailed t-value for 95% confidence, at v degrees of freedom, and

$\bar{S}_x$  is the standard deviation of the sample

- [20] This constituent is a pollutant of concern. Mass emission goals in the form of Caps are established for maintaining current emission levels for the pollutant of concern.
- [21] Numerical Effluent Quality Performance Goals were derived statistically using data in Discharge Monitoring Reports for the period January 1993 to December 1995. The discharge performance goal was set at the 95th percentile (Upper Confidence Limit) using the formula,

$$\text{Limit} = \bar{X} + [t(1, \alpha 0.05), v] * \bar{S}_x$$

where,

$\bar{X}$  is the sample mean,

$[t(1, \alpha 0.05), v]$  is the one tailed t-value for 95% confidence, at v degrees of freedom, and

$\bar{S}_x$  is the standard deviation of the sample

- [22] These constituents have numerical limits which are below the method detection limits. No performance goals are therefore prescribed.
- [23] These constituents were not detected. No performance goals are therefore prescribed.
2. Radioactivity in the effluent shall not exceed limits specified in Title 17, Chapter 5, Subchapter 4, Group 3, Article 3, Section §30253, of the California Code of Regulations referencing the U.S., Title 10, Code of Federal Regulations, Part 20, Section 20.2003, Appendix B.
3. If the effluent consistently exceeds acute or chronic toxicity limitation for three consecutive toxicity testing, a toxicity reduction evaluation (TRE) shall be conducted by the CSDLAC. The TRE shall include all reasonable steps to identify the source(s) of toxicity. Once the source(s) of toxicity is(are) identified, the discharger shall take all reasonable steps necessary to reduce toxicity to the required level.
4. The pH of the effluent discharged shall at all times be within the range of 6.0 - 9.0.
5. The temperature of wastes discharged shall not exceed 37.8°C (100°F).

## II. INTERIM LIMITS

CSDLAC shall comply with the following interim limits until December 31, 2002 (as set forth in the Regional Board Cease and Desist Order No. 88-134, and the Consent Decree):

<u>Constituent</u>	<u>Unit</u>	<u>Discharge Limitations</u>		
		<u>30-day</u>	<u>Average 7-day</u>	<u>Daily Maximum</u>
BOD <sub>5</sub> 20°C	mg/L	120	180	-----
Suspended solids	mg/L	90	135	-----
Oil and grease	mg/L	15	22.5	45
Settleable solids	ml/L	0.5	0.75	1.5
Turbidity	NTU	75	100	225

III. MASS EMISSION RATES

Mass emission caps are applied to the four pollutants of concern (copper, lead, silver, and zinc) that are causing or could cause deterioration of beneficial uses of the Santa Monica Bay. CSDLAC should make best efforts to discharge the pollutants of concern below the cap values. Any exceedance of the emission rates including the cause(s) of exceedance and any proposed corrective measures if necessary, shall be included in the annual report. The mass emission performance caps are not enforceable limitations. The Executive Officer may modify any of the mass emission cap values if the CSDLAC requests and demonstrates that the change is warranted.

The caps are based on the average emission rate for the five year period ('92-'96) adjusted by a factor of 1.16 (design flow of 385 mgd + average flow of 330 mgd for past five years) to normalize to the design flow of 385 mgd.

<u>Parameter</u>	<u>Mass Emission Rate (CAP), Lbs/year</u>
Copper	27,990
Lead	9,702
Silver	6,950
Zinc	91,840

IV. RECEIVING WATER LIMITATIONS

1. Floating particulates and oil and grease shall not be visible as a result of wastes discharged.
2. 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 ocean surface.
3. The transmittance of natural light shall not be significantly reduced at any point outside the zone of initial dilution (ZID) as a result of wastes discharged.
  4. The rate of deposition and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded as a result of wastes discharged.
  5. The wastes discharged shall not depress the dissolved oxygen concentration outside the ZID at any time more than 10 percent from that which occurs naturally, excluding effects of naturally induced upwelling.
  6. The wastes discharged shall not change the pH of the receiving waters at any time more than 0.2 units from that which occurs naturally outside the ZID.
  7. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions as a result of wastes discharged.
  8. The concentration in marine sediments of substances listed in Effluent Limitations Table 1.b.i. above shall not be increased to levels in marine sediments which would degrade indigenous biota as a result of wastes discharged.
  9. The concentration of organic materials in marine sediments shall not be increased above that which would degrade marine life as a result of wastes discharged.
  10. Wastes discharged shall not cause objectionable aquatic growths or degrade indigenous biota.
  11. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded as a result of wastes discharged.
  12. The concentration of organic materials in fish, shellfish or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health as a result of wastes discharged.
  13. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered as a result of wastes discharged.
  14. The wastes discharged shall not cause objectionable odors to emanate from the receiving waters.

15. Wastes discharged shall not cause receiving waters to contain any substance in concentrations toxic to human, animal, plant, or fish life.
16. No physical evidence of wastes discharged shall be visible at any time in the water or on beaches, shores, rocks, or structures.
17. The salinity of the receiving waters shall not be changed by the wastes discharged to an extent such as to be harmful to marine biota.
18. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Board, but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column:
  - (a) Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).
  - (b) The fecal coliform density based on a minimum of not less than five samples for any 30-day period, shall not exceed a geometric mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.
19. At all areas where shellfish may be harvested for human consumption, as determined by the Regional Board, the following bacteriological objectives shall be maintained throughout the water column:

The median total coliform concentration for any 6-month period shall not exceed 70 per 100 ml, and not more than 10 percent of the samples during any 60 day period exceed 230 per 100 ml.
20. If a shore station consistently exceeds a total or fecal coliform objective or exceeds a geometric mean enterococcus density of 24 organisms per 100 ml for a 30-day period or 12 organisms per 100 ml for a six-month period, the discharger shall conduct a sanitary survey to determine if the discharge is the source of the contamination.
21. The wastes discharged shall not contain individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses.



**B. PRETREATMENT REQUIREMENTS**

1. CSDLAC shall implement and enforce its approved pretreatment program. CSDLAC shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR part 403 including subsequent regulatory revisions thereof. Where Part 403 or subsequent revision places mandatory actions upon the CSDLAC as Control Authority but does not specify a timetable for completion of the actions, the CSDLAC shall complete the required actions within six months from the issuance date of this Order and permit or the effective date of the Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the CSDLAC shall be subject to enforcement actions, penalties, fines, and other remedies by USEPA, Regional Board, or other appropriate parties, as provided in the Clean Water Act. EPA or the Regional Board may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements as provided in the Clean Water Act and/or the California Water Code
2. The CSDLAC shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Clean Water Act with timely, appropriate and effective enforcement actions. The CSDLAC 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 the new industrial user, upon commencement of the discharge.
3. The CSDLAC shall perform the pretreatment functions as required in the Federal Regulations 40 CFR Part 403 including, but not be limited to:
  - a. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);
  - b. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
  - c. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and
  - d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8 (f)(3).
  - e. The CSDLAC shall submit annually a report to EPA, Regional Board, and State Board describing the CSDLAC's pretreatment activities over the previous year. In the event of noncompliance with any conditions or requirements of this permit, the CSDLAC shall include the reasons for noncompliance and state how and when the CSDLAC shall comply with such conditions and requirements. This annual report shall cover operations from January 1 through December 31 of the previous year and is due on April 1 of each year and shall contain, but not be limited to, the information required in the attached "Requirements for Pretreatment - Annual

Report" (Attachment No. P), or an approved revised version thereof.

C. REQUIREMENTS AND PROVISIONS

1. The bypassing of untreated waste to the ocean is prohibited.
2. The discharge of municipal and industrial waste sludge to the ocean, or into a waste stream that discharges to the ocean, is prohibited.
3. The discharge of sludge digester supernatant and centrate directly to the ocean, or into a waste stream that discharges to the ocean without further treatment is prohibited.
4. The discharger shall conduct a special study to evaluate the performance of the secondary treatment system. Prior to implementation of the study, the workplan shall be submitted to the Executive Officer for approval. The results of the study shall be submitted with the Report of Waste Discharge for the reissuance of these waste discharge requirements and permit.
5. The discharger shall conduct a special study to investigate potential toxic effects associated with the formation of chlorinated compounds from chlorination of the effluent. The study will comprise of performing parallel chronic toxicity testing with chlorinated and unchlorinated effluent. At a minimum, this parallel testing shall be conducted once per month for three months using both giant kelp (*Macrocystis pyrifera*) and sea urchin (*Strongylocentrotus purpuratus* or *S. franciscanus*) as test organisms. Additional parallel testing may be required to demonstrate statistical difference between the two treatments. Test results shall be reported to the Regional Board within 30 days following completion of each toxicity testing event. The special study shall be completed within 12 months from the effective date of this Order.

If the special study indicates a significant difference in toxicity between the unchlorinated and chlorinated effluents, within 90 days of completion of the special study, but not later than September 30, 1998, the Regional Board shall reopen this Order to consider requiring CSDLAC to perform a chlorination study to optimize chlorine usage.

6. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act or amendments thereto, the Board may revise and modify this Order and permit in accordance with such more

stringent standards.

7. The CSDLAC shall comply with all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 405 of the Clean Water Act and any amendments thereto.
8. This Order includes the attached Monitoring and Reporting Program (Attachment T). If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the Monitoring and Reporting Program Prevail.
9. The discharger shall comply with the requirements of State Water Board's general stormwater permit associated with industrial activity (State Water Board Order No. 97-03-DWQ adopted on April 17, 1997] given in Attachment A.
11. The CSDLAC shall protect the facility from inundation which could occur as a result of a flood having a predicted frequency of once in 100 years.
12. In the determination of compliance with statistically derived limitations, normally occurring variation shall be considered. An analytical result that is in excess of the numerical effluent limits that were statistically derived, may not necessarily be a violation of that limit. Compliance with these numerical limits shall be determined by the use of an appropriate statistical method consistent with the methods used to determine the limit.
13. The Regional Board and USEPA shall be notified immediately by telephone of the presence of adverse conditions in the receiving waters or on beaches and shores as a result of this discharge; written confirmation shall follow as soon as possible but not later than five working days.
14. Standby or emergency power facilities and/or storage capacity or other means shall be provided so that in the event of plant upset or outage due to power failure or other causes, discharge of raw or inadequately treated sewage does not occur.
15. 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 hereinbefore and said "Standard Provisions", those provisions stated hereinbefore prevail.
16. The CSDLAC shall comply with all existing Federal and State laws and regulations that apply to its sewage sludge use and disposal practices and with the technical standards in Section §405 (d) of the Federal Clean Water Act when promulgated.

17. This Order includes the attached "Biosolids Requirements" (Attachment B). The CSDLAC must submit all required information and comply with the monitoring, reporting, and record-keeping programs as specified in these requirements.
18. If an applicable "acceptable" management practice or numerical limitation for pollutants in biosolids promulgated under Section 405 (d) (2) of the Clean Water Act, as amended by the Water Quality Act of 1987, is more stringent than the biosolids pollutant limit or acceptable management practice in this permit, this permit may be reopened to include requirements promulgated under such section. Regardless of whether or not the permit is modified, the CSDLAC shall comply with the limitations no later than the compliance date specified in the applicable regulations as required by Section 405 (d) (2) (D) of the Clean Water Act.

D. EXPIRATION DATE

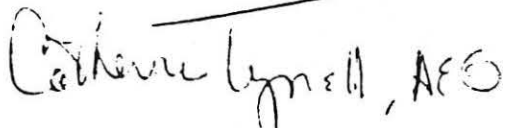
This Order expires on May 10, 2002.

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 the expiration date as application for issuance of new waste discharge requirements.

E. RESCISSION

Order No. 91-112 adopted by this Board on October 28, 1991, are hereby rescinded except for enforcement purposes.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 16, 1997.

Handwritten signature of Dennis A. Dickerson, AEO.

DENNIS A. DICKERSON  
Executive Officer

**FIGURE A: JWPCP LOCATION MAP INCLUDING SERVICE AREA**

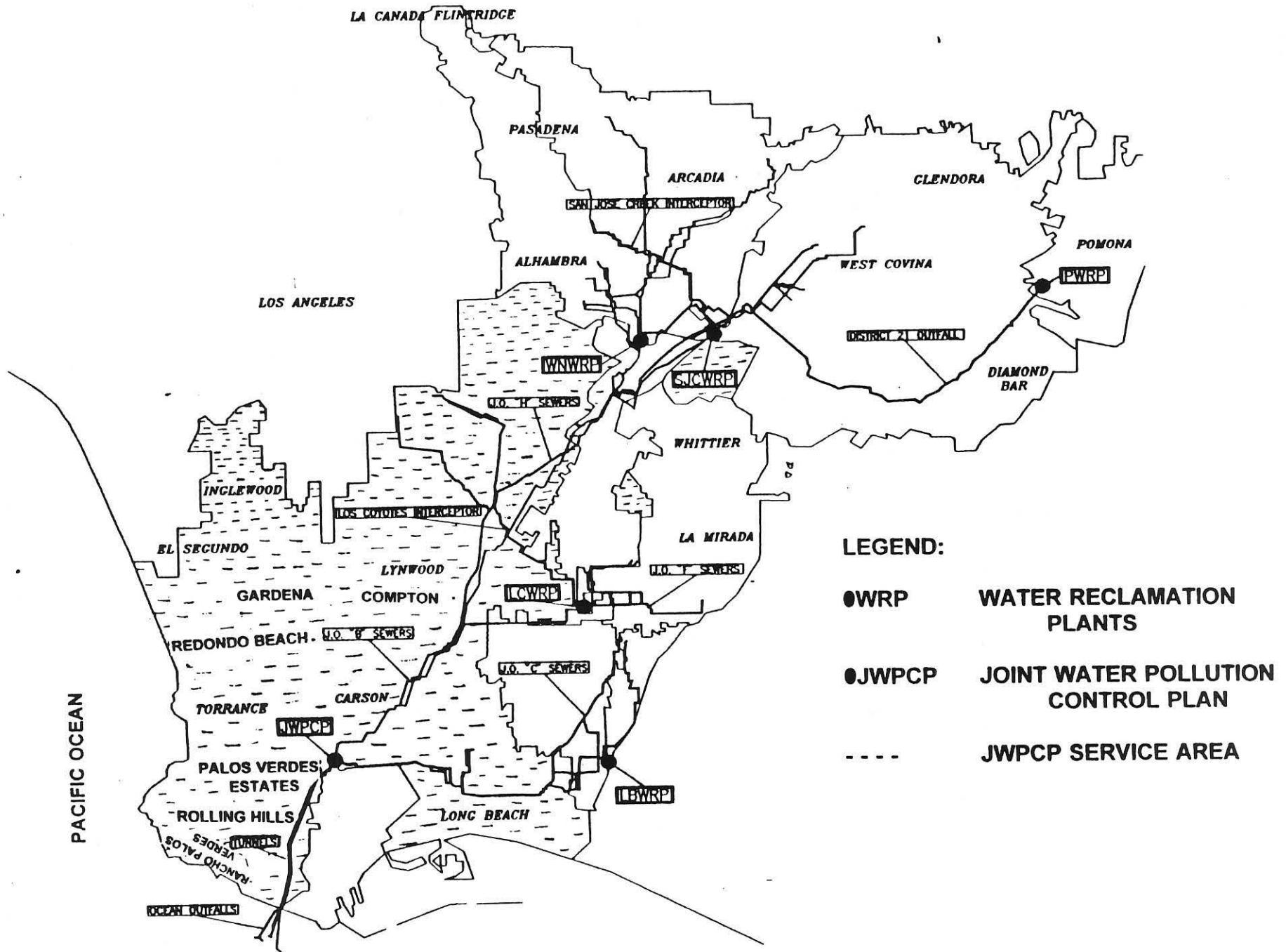
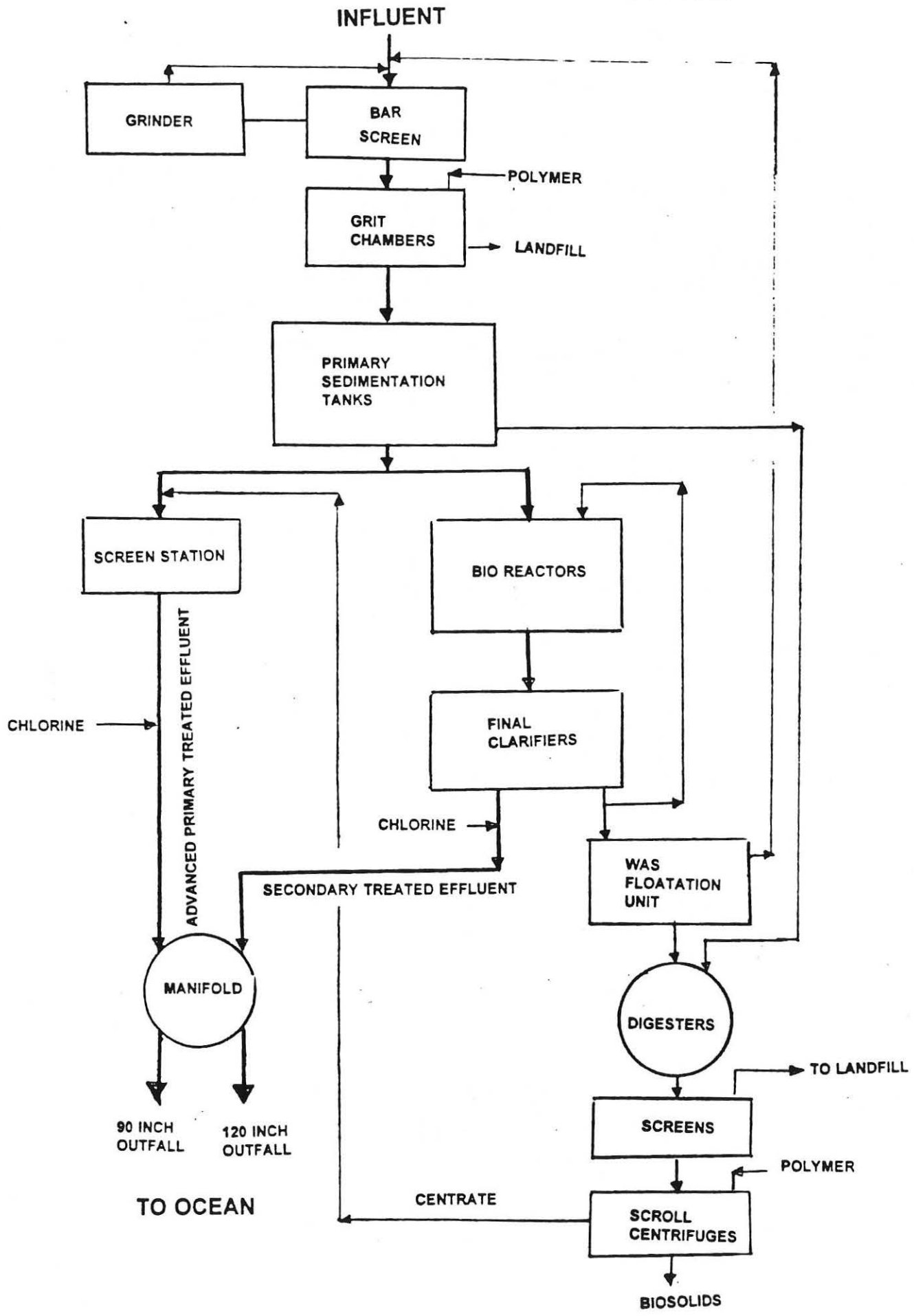


FIGURE B: JWPCP - PROCESS SCHEMATIC





## ATTACHMENT 1

### LOCATION AND DESCRIPTION OF JWPCP DISCHARGE OUTFALLS

Treated wastewater from the Joint Water Pollution Control Plant (JWPCP), which is a blend of advanced primary and secondary effluents, travels 6.5 miles through tunnels to Whites Point where it is discharged to the Pacific Ocean, at Whites Point, off the Palos Verdes Peninsula, via two ocean outfalls: Discharge Serial No. 001 (about 65% of the effluent) and No. 002 (about 35% of the effluent). The other 12 discharge points (Discharge Serial Nos. 003 through 014) are provided solely for emergency bypass and/or hydraulic relief of the plant. Discharge Serial No. 003 is used only during times of heavy rains to provide hydraulic relief for flow in the outfall system. Discharge Serial No. 004 serves as a standby outfall for use in the event of extreme emergency. Effluent discharge points are shown in Figure C.

The discharge points are described as follows:

<u>Discharge Serial No.</u>	<u>Location &amp; Description</u>	<u>Receiving Water</u>
001	Whites Point 120-inch ocean outfall at about 12,000 feet due south of shoreline of Whites Point, San Pedro, and about 200 feet below the ocean surface. Latitude - 33° 41' 52" Longitude - 118° 19' 27"	Pacific Ocean Offshore zone
002	Whites Point 90-inch ocean outfall at about 10,400 feet offshore southwest of Whites Point, San Pedro, and about 200 feet below the ocean surface. Latitude - 33° 42' 02" Longitude - 118° 20' 14"	Pacific Ocean Offshore zone
003	Whites Point 72-inch ocean outfall at about 6,700 feet offshore of Whites Point shoreline between Discharge Serial Nos. 001 and 002 and about 160 feet below the ocean surface. Latitude - 33° 42' 05" Longitude - 118° 19' 46"	Pacific Ocean Offshore zone
004	Whites Point 60-inch ocean outfall at about 5,000 feet offshore of Whites Point shoreline between Discharge Serial Nos. 002 and 003 and about 110 feet below the ocean surface. Latitude - 33° 42' 20" Longitude - 118° 19' 40"	Pacific Ocean Offshore zone



Attachment 1  
 Location and Description of JWPCP Discharge Outfalls

<u>Discharge Serial No.</u>	<u>Location &amp; Description</u>	<u>Receiving Water</u>
005	<p>JWPCP-E4 Bypass. Four 90 x 60 inch slide gates. Effluent Channel</p> <p>No. 3 at JWPCP, to Wilmington Drain Flood Control Channel.            Latitude - 33° 48' 04"            Longitude - 118° 17' 14"</p> <p>This bypass is intended for use only in the event of a major disaster which prevents the pumping of plant effluent through the tunnels and ocean outfall system.</p>	Harbor Lake (Bixby Slough)
006	This has been abandoned.	
007	<p>J.O. "A" Unit 3B Bypass. A 60-inch bypass with two 36-inch gate valves and two siphon barrels crossing under Dominguez Channel at Wilmington Avenue, Carson.            Latitude - 33° 49' 28"            Longitude - 118° 14' 29"</p> <p>For emergency relief of the Joint Outfall "A" Trunk Sewer.</p>	Dominguez Channel
008	<p>J.O. "B" Unit 9B Bypass.            A 54-inch bypass with a 60-inch gate valve constructed from an upstream to siphon structure to Dominguez Channel at Wilmington Avenue and 223rd Street, Carson.            Latitude - 33° 49' 28"            Longitude - 118° 14' 29"</p>	Dominguez Channel
009	<p>J.O. "C" Unit 1 36-inch Bypass.            A 36-inch pipe extending from the Long Beach Pumping Plant to the west side of Los Angeles River at 16th Street, Long Beach.            Latitude - 33° 47' 14"            Longitude - 118° 12' 18"</p> <p>For an extreme emergency relief of the system.</p>	Los Angeles River

Attachment 1

Location and Description of JWPCP Discharge Outfalls

<u>Discharge Serial No.</u>	<u>Location &amp; Description</u>	<u>Receiving Water</u>
010	<p>J.O. "C" Unit 1 24-inch Bypass.                      A 24-inch line from the Long Beach Pumping Plant force main about 2,500 feet north of Pacific Coast Highway on the east side of Dominguez Channel, Carson.                      Latitude - 33° 47' 53"                      Longitude - 118° 13' 39"</p> <p>An emergency bypass for a portion of the Joint Outfall "C" extending from Dominguez Channel to JWPCP sewer.</p>	Dominguez Channel
011	<p>J.O. "D" Unit 5 Bypass. A 36-inch bypass at Manhattan Beach Blvd. on the west side of Dominguez Channel.                      Latitude - 33° 53' 14"                      Longitude - 118° 20' 03"</p> <p>For emergency relief of Joint Outfall "D" and the District No. 5 main trunk sewer.</p>	Dominguez Channel
015	<p>JWPCP Secondary Effluent Emergency Bypass.                      This is a double barrel, 8-foot box emergency bypass for chlorinated or unchlorinated secondary effluent into Wilmington Drain Flood Control Channel about 360 feet south of Discharge Serial No. 005.                      Latitude - 33° 47' 58"                      Longitude - 118° 17' 14"</p>	Harbor Lake (Bixby Slough)
Overflow lines:		
012	<p>J.O. "J" Unit 1G Overflow.                      An 18-inch overflow line from a manhole near Palos Verdes Drive south and Sea Cove Drive via a storm drain</p>	Pacific Ocean Nearshore Zone
<u>Discharge Serial No.</u>	<u>Location &amp; Description</u>	<u>Receiving Water</u>

Attachment 1  
Location and Description of JWPCP Discharge Outfalls

culvert to the Pacific Ocean.  
Latitude - 33° 44' 41"  
Longitude - 118° 22' 56"

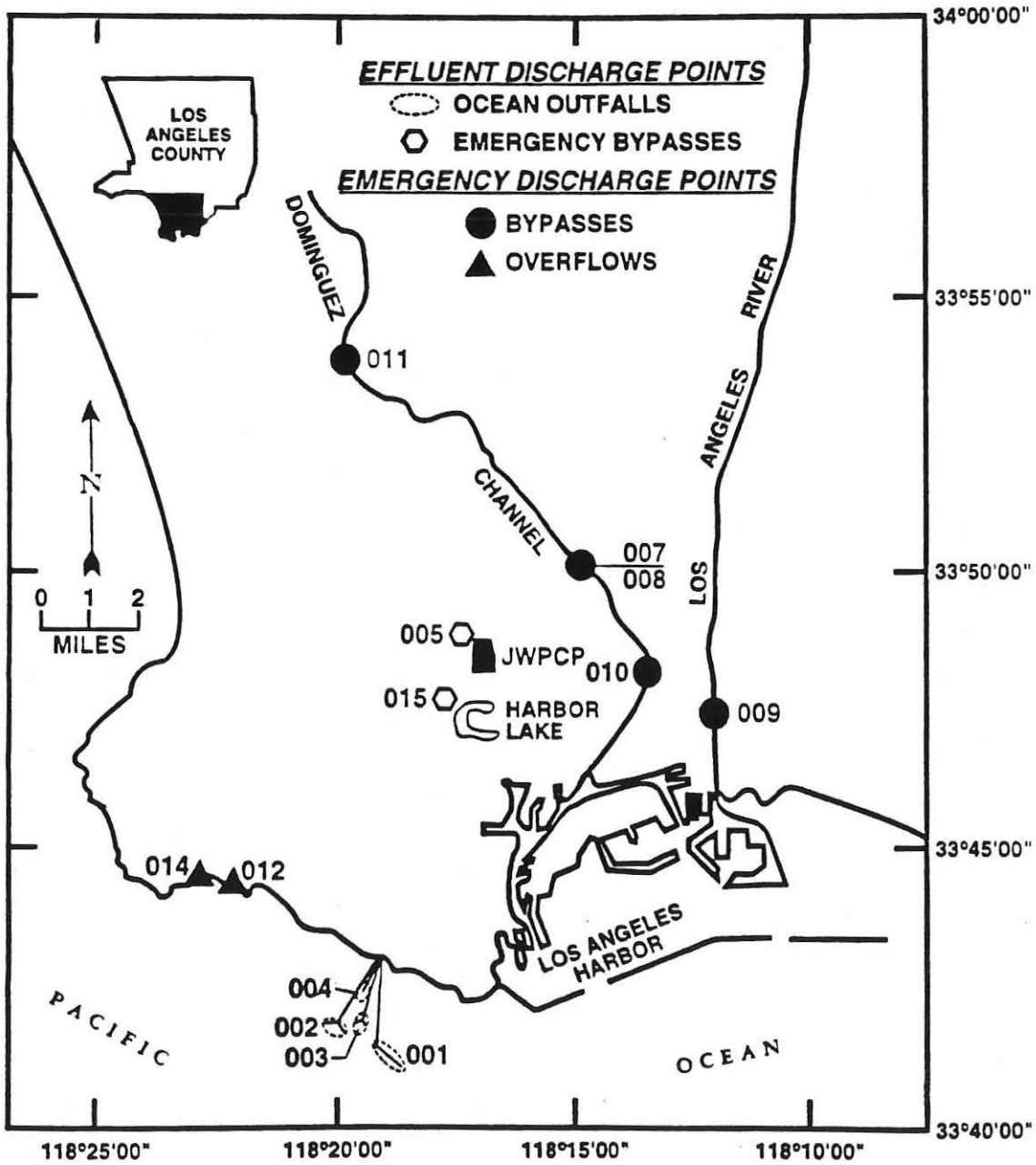
This overflow facility is provided to protect Wayfarer's Chapel against flooding in the event of a malfunction at the pumping plant.

013 This has been abandoned.

014	Sea Cove Pumping Plant Overflow. An 8-inch overflow from the Sea Cove Pumping Plant to the Pacific Ocean via a storm drain at Abalone Cove, Rancho Palos Verdes.	Pacific Ocean Nearshore zone
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# FIGURE C

## JOINT WATER POLLUTION CONTROL PLANT Effluent and Emergency Discharge Points



STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD)  
 WATER QUALITY ORDER NO. 97-03-DWQ  
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
 GENERAL PERMIT NO. CAS000001 (GENERAL PERMIT)

WASTE DISCHARGE REQUIREMENTS (WDRS)  
 FOR  
 DISCHARGES OF STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITIES  
 EXCLUDING CONSTRUCTION ACTIVITIES

The State Water Board finds that:

1. Federal regulations for storm water discharges were issued by the U.S. Environmental Protection Agency (U.S. EPA) on November 16, 1990 (40 Code of Federal Regulations [CFR] Parts 122, 123, and 124). The regulations require operators of specific categories of facilities where discharges of storm water associated with industrial activity (storm water) occur to obtain an NPDES permit and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or prevent pollutants associated with industrial activity in storm water discharges and authorized non-storm discharges.
2. This General Permit shall regulate storm water discharges and authorized non-storm water discharges from specific categories of industrial facilities identified in Attachment 1, storm water discharges and authorized non-storm water discharges from facilities as designated by the Regional Water Quality Control Boards (Regional Water Boards), and storm water discharges and authorized non-storm water discharges from other facilities seeking General Permit coverage. This General Permit may also regulate storm water discharges and authorized non-storm water discharges from facilities as required by U.S. EPA regulations. This General Permit shall regulate storm water discharges and authorized non-storm water discharges previously regulated by San Francisco Bay Regional Water Board Order, No. 92-11 (as amended by Order No. 92-116). This General Permit excludes storm water discharges and non-storm water discharges that are regulated by other individual or general NPDES permits, storm water discharges and non-storm water discharges from construction activities, and storm water discharges and non-storm water discharges excluded by the Regional Water Boards for coverage by this General Permit. Attachment 2 contains the addresses and telephone numbers of each Regional Water Board office.
3. To obtain coverage for storm water discharges and authorized non-storm water discharges pursuant to this General Permit, operators of facilities (facility operators) must submit a Notice of Intent (NOI), in accordance with the Attachment 3 instructions, and appropriate annual fee to the State Water Board. This includes facility operators that have participated in U.S. EPA's group application process.
4. This General Permit does not preempt or supersede the authority of local agencies to prohibit, restrict, or control storm water discharges and authorized non-storm water discharges to storm drain systems or other water-courses within their jurisdictions as allowed by State and Federal law.
5. If an individual NPDES permit is issued to a facility operator otherwise subject to this General Permit or an alternative NPDES general permit is subsequently adopted which covers storm water discharges and/or authorized non-storm water discharges regulated by this General Permit, the applicability of this General Permit to such discharges is automatically terminated on the effective date of the individual NPDES permit or the date of approval for coverage under the subsequent NPDES general permit.
6. Effluent limitations and toxic and effluent standards established in Sections 208(b), 301, 302, 303(d), 304, 305, 307, and 403 of the Federal Clean Water Act (CWA), as amended, are applicable to storm water discharges and authorized non-storm water discharges regulated by this General Permit.
7. This action to adopt an NPDES general permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the California Water Code.
8. Federal regulations (40 CFR Subchapter N) establish effluent limitations guidelines for storm water discharges from some facilities in ten industrial categories.
9. For facilities which do not have established effluent limitation guidelines for storm water discharges in 40 CFR Subchapter N, it is not feasible at this time to establish numeric effluent limitations. This is due to the large number of discharges and the complex nature of storm water discharges. This is also consistent with the U.S. EPA's August 1, 1996 "Interim Permitting Approach for Water Quality Based Effluent Limitations in Storm Water Permits."
10. Facility operators are required to comply with the terms and conditions of this General Permit. Compliance with the terms and conditions of this General Permit constitutes compliance with BAT/BCT requirements and with requirements to achieve water quality standards. This includes the development and implementation of an effective Storm Water



Pollution Prevention Plan (SWPPP) to reduce or prevent pollutants associated with industrial activity in storm water discharges and authorized non-storm water discharges.

11. Best Management Practices (BMPs) to reduce or prevent pollutants associated with industrial activity in storm water discharges and authorized non-storm water discharges are appropriate where numeric effluent limitations are infeasible, and the implementation of BMPs is adequate to achieve compliance with BAT/BCT and with water quality standards.
12. The State Water Board has adopted a Watershed Management Initiative that encourages watershed management throughout the State. This General Permit recognizes the Watershed Management Initiative by supporting the development of watershed monitoring programs authorized by the Regional Water Boards.
13. Following adoption of this General Permit, the Regional Water Boards shall enforce its provisions.
14. Following public notice in accordance with State and Federal laws and regulations, the State Water Board held a public hearing on November 12, 1996 and heard and considered all comments pertaining to this General Permit. A response to all significant comments has been prepared and is available for public review.
15. This Order is an NPDES General Permit in compliance with Section 402 of the CWA and shall take effect upon adoption by the State Water Board.
16. All terms that are defined in the CWA, U.S. EPA storm water regulations and the Porter-Cologne Water Quality Control Act will have the same definition in this General Permit unless otherwise stated.

IT IS HEREBY ORDERED that all facility operators required to be regulated by this General Permit shall comply with the following:

**A. DISCHARGE PROHIBITIONS:**

1. Except as allowed in Special Conditions (D.1.) of this General Permit, materials other than storm water (non-storm water discharges) that discharge either directly or indirectly to waters of the United States are prohibited. Prohibited non-storm water discharges must be either eliminated or permitted by a separate NPDES permit.

2. Storm water discharges and authorized non-storm water discharges shall not cause or threaten to cause pollution, contamination, or nuisance.

**B. EFFLUENT LIMITATIONS:**

1. Storm water discharges from facilities subject to storm water effluent limitation guidelines in Federal regulations (40 CFR Subchapter N) shall not exceed the specified effluent limitations.
2. Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.
3. Facility operators covered by this General Permit must reduce or prevent pollutants associated with industrial activity in storm water discharges and authorized non-storm water discharges through implementation of BAT for toxic and non-conventional pollutants and BCT for conventional pollutants. Development and implementation of an SWPPP that complies with the requirements in Section A of the General Permit and that includes BMPs that achieve BAT/BCT constitutes compliance with this requirement.

**C. RECEIVING WATER LIMITATIONS:**

1. Storm water discharges and authorized non-storm water discharges to any surface or ground water shall not adversely impact human health or the environment.
2. Storm water discharges and authorized non-storm water discharges shall not cause or contribute to an exceedance of any applicable water quality standards contained in a Statewide Water Quality Control Plan or the applicable Regional Water Board's Basin Plan.
3. A facility operator will not be in violation of Receiving Water Limitation C.2. as long as the facility operator has implemented BMPs that achieve BAT/BCT and the following procedure is followed:
  - a. The facility operator shall submit a report to the appropriate Regional Water Board that describes the BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality



standards. The report shall include an implementation schedule. The Regional Water Board may require modifications to the report.

- b. Following approval of the report described above by the Regional Water Board, the facility operator shall revise its SWPPP and monitoring program to incorporate the additional BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required.
4. A facility operator shall be in violation of this General Permit if he/she fails to do any of the following:
- a. Submit the report described above within 60 days after either the facility operator or the Regional Water Board determines that discharges are causing or contributing to an exceedance of an applicable water quality standard;
  - b. Submit a report that is approved by the Regional Water Board; or
  - c. Revise its SWPPP and monitoring program as required by the approved report.

#### D. SPECIAL CONDITIONS

##### 1. Non-Storm Water Discharges

- a. The following non-storm water discharges are authorized by this General Permit provided that they satisfy the conditions specified in Paragraph b. below: fire hydrant flushing; potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems; drinking fountain water; atmospheric condensates including refrigeration, air conditioning, and compressor condensate; irrigation drainage; landscape watering; springs; ground water; foundation or footing drainage; and sea water infiltration where the sea waters are discharged back into the sea water source.
- b. The non-storm water discharges as provided in Paragraph a. above are authorized by this General Permit if all the following conditions are met:
  - i. The non-storm water discharges are in compliance with Regional Water Board requirements.
  - ii. The non-storm water discharges are in compliance with local agency ordinances and/or requirements.

- iii. BMPs are specifically included in the SWPPP to (1) prevent or reduce the contact of non-storm water discharges with significant materials or equipment and (2) minimize, to the extent practicable, the flow or volume of non-storm water discharges.
  - iv. The non-storm water discharges do not contain significant quantities of pollutants.
  - v. The monitoring program includes quarterly visual observations of each non-storm water discharge and its sources to ensure that BMPs are being implemented and are effective.
  - vi. The non-storm water discharges are reported and described annually as part of the annual report.
- c. The Regional Water Board or its designee may establish additional monitoring programs and reporting requirements for any non-storm water discharge authorized by this General Permit.
  - d. Discharges from firefighting activities are authorized by this General Permit and are not subject to the conditions of Paragraph b. above.

#### E. PROVISIONS

1. All facility operators seeking coverage by this General Permit must submit an NOI for each of the facilities they operate. Facility operators filing an NOI after the adoption of this General Permit shall use the NOI form and instructions (Attachment J) attached to this General Permit. Existing facility operators who have filed an NOI pursuant to State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12-DWQ) or San Francisco Bay Regional Water Board Order No. 92-11 (as amended by Order No. 92-114) shall submit an abbreviated NOI form provided by the State Water Board. The abbreviated NOI form shall be submitted within 45 days of receipt.
2. Facility operators who have filed an NOI, pursuant to State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12-DWQ) or San Francisco Bay Regional Water Board Order No. 92-11 (as amended by Order No. 92-114), shall continue to implement their existing SWPPP and shall implement any necessary revisions to their SWPPP in accordance with Section A of this General Permit in a timely manner, but in no case later than August 1, 1997. Facility operators beginning industrial activities after

adoption of this General Permit must develop and implement an SWPPP in accordance with Section A of this General Permit when the industrial activities begin.

3. Facility operators who have filed an NOI, pursuant to State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-116) or San Francisco Bay Regional Water Board Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing Monitoring Program and shall implement any necessary revisions to their Monitoring Program in accordance with Section B of the General Permit in a timely manner, but in no case later than August 1, 1997. Facility operators beginning industrial activities after adoption of this General Permit must develop and implement a Monitoring Program in accordance with Section B of this General Permit when industrial activities begin.
4. Facility operators of feedlots as defined in 40 CFR Part 412 that are in full compliance with Section 2560 to Section 2565, Title 23, California Code of Regulations (Chapter 15) will be in compliance with all effluent limitations and prohibitions contained in this General Permit. Facility operators of feedlots that comply with Chapter 15, however, must perform monitoring in compliance with the requirements of Section B.4.d. and B.14. of this General Permit. Facility operators of feedlots must also comply with any Regional Water Board WDRs or NPDES general permit regulating their storm water discharges.
5. All facility operators must comply with lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding storm water discharges and non-storm water discharges entering storm drain systems or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs developed to comply with NPDES permits issued by the Regional Water Boards to local agencies.
6. All facility operators must comply with the standard provisions and reporting requirements for each facility covered by this General Permit contained in Section C, Standard Provisions.
7. Facility operators that operate facilities with co-located industrial activities (facilities that have industrial activities that meet more than one of the descriptions in Attachment 1) that are contiguous to one another are authorized to file a single NOI to comply with the General Permit. Storm water discharges

and authorized non-storm water discharges from the co-located industrial activities are authorized provided that the SWPPP and Monitoring Program addresses each co-located industrial activity.

8. Upon reissuance of a successor NPDES general permit by the State Water Board, the facility operators subject to this reissued General Permit may be required to file an NOI.
9. Facility operators may request to terminate their coverage under this General Permit by filing a Notice of Termination (NOT) with the Regional Water Board. The NOT shall provide all documentation requested by the Regional Water Board. The facility operator will be notified when the NOT has been approved. Should the NOT be denied, facility operators are responsible for continued compliance with the requirements of this General Permit.
10. Facility operators who have filed an NOI, pursuant to State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Board Order No. 92-11 (as amended by Order No. 92-116) shall:
  - a. Complete the 1996-97 activities required by those general permits. These include, but are not limited to, conducting any remaining visual observations, sample collection, annual site inspection, annual report submittal, and (for group monitoring leaders) Group Evaluation Reports; and
  - b. Comply with the requirements of this General Permit no later than August 1, 1997.
11. If the Regional Water Board determines that a discharge may be causing or contributing to an exceedance of any applicable water quality standards contained in a Statewide Water Quality Control Plan or the applicable Regional Water Board's Basin Plan, the Regional Water Board may order the facility operator to comply with the requirements described in Receiving Water Limitation C.3. The facility operator shall comply with the requirements within the time schedule established by the Regional Water Board.
12. If the facility operator determines that its storm water discharges or authorized non-storm water discharges are causing or contributing to an exceedance of any

applicable water quality standards, the facility operator shall comply with the requirements described in Receiving Water Limitation C.3.

- 13. State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12-DWQ) and San Francisco Bay Regional Water Board Order No. 91-011 (as amended by Order No. 92-116) are hereby rescinded.

**F. REGIONAL WATER BOARD AUTHORITIES**

- 1. Following adoption of this General Permit, Regional Water Boards shall:
  - a. Implement the provisions of this General Permit, including, but not limited to, reviewing SWPPPs, reviewing annual reports, conducting compliance inspections, and taking enforcement actions.
  - b. Issue other NPDES general permits or individual NPDES storm water permits as they deem appropriate to individual facility operators, facility operators of specific categories of industrial activities, or facility operators in a watershed or geographic area. Upon issuance of such NPDES permits by a Regional Water Board, the affected facility operator shall no longer be regulated by this General Permit. Any new NPDES permit issued by the Regional Water Board may contain different requirements than the requirements of this General Permit.
- 2. Regional Water Boards may provide guidance to facility operators on the SWPPP and the Monitoring Program and reporting implementation.
- 3. Regional Water Boards may require facility operators to conduct additional SWPPP and Monitoring Program and reporting activities necessary to achieve compliance with this General Permit.
- 4. Regional Water Boards may approve requests from facility operators whose facilities include co-located industrial activities that are not contiguous within the facilities (e.g., some military bases) to comply with this General Permit under a single NOI. Storm water discharges and authorized non-storm water discharges from the co-located industrial activities and from other sources within the facility that may generate significant quantities of pollutants are authorized provided the SWPPP and

Monitoring Program addresses each co-located industrial activity and other sources that may generate significant quantities of pollutants.

**CERTIFICATION**

The undersigned, Administrative Assistant to the State Water Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on April 17, 1997.

AYE: John P. Caffrey  
 John W. Brown  
 James M. Stubchaer  
 Marc Del Piero  
 Mary Jane Forster

NO: None

ABSENT: None

ABSTAIN: None

*Maureen Marché* 4/25/97  
 Maureen Marché  
 Administrative Assistant to the Board

**SECTION A: STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS**

**1. Implementation Schedule**

A storm water pollution prevention plan (SWPPP) shall be developed and implemented for each facility covered by this General Permit in accordance with the following schedule.

- a. Facility operators beginning industrial activities before October 1, 1992 shall develop and implement the SWPPP no later than October 1, 1992. Facility operators beginning industrial activities after October 1, 1992 shall develop and implement the SWPPP when industrial activities begin.
- b. Existing facility operators that submitted a Notice of Intent (NOI), pursuant to State Water Resources Control Board (State Water Board) Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing SWPPP and shall implement any necessary revisions to their SWPPP in a timely manner, but in no case later than August 1, 1997.

**2. Objectives**

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

**3. Planning and Organization**

**a. Pollution Prevention Team**

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Section B of this General Permit. The SWPPP shall clearly identify the General Permit related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

**b. Review Other Requirements and Existing Facility Plans**

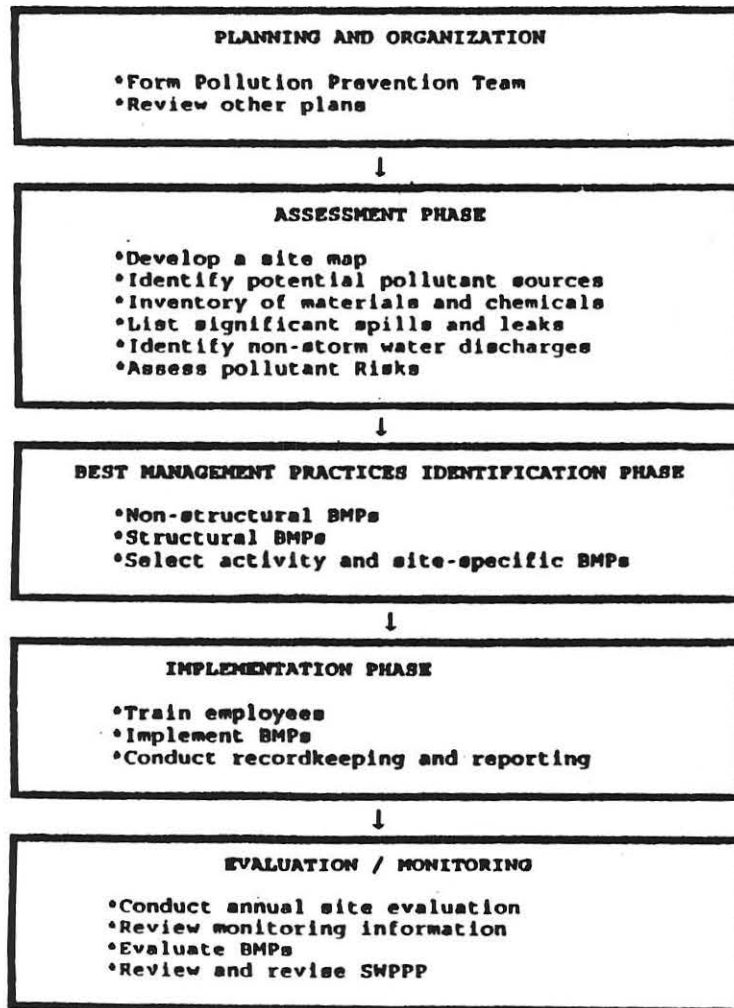
The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this General Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

**4. Site Map**

The SWPPP shall include a site map. The site map shall be provided on an 8-1/2 x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A

FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL STORM WATER POLLUTION PREVENTION PLANS



The following information shall be included on the site map:

- The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.
- The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.
- An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.
- Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.
- Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

5. List of Significant Materials

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.



**6. Description of Potential Pollutant Sources**

a. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in Section A.4.a above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

**i. Industrial Processes**

Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

**ii. Material Handling and Storage Areas**

Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

**iii. Dust and Particulate Generating Activities**

Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

**iv. Significant Spills and Leaks**

Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302)

that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], Parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this General Permit.

**v. Non-Storm Water Discharges**

Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D, are prohibited by this General Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, boiler blowdown, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D, are authorized by this General Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

**vi. Soil Erosion**

Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

b. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and

potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with Section A.8. below.

**7. Assessment of Potential Pollutant Sources**

a. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in A.6. above to determine:

i. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and

ii. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.

b. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in Section 8 below.

**8. Storm Water Best Management Practices**

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections A.6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B

EXAMPLE

ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND  
CORRESPONDING BEST MANAGEMENT PRACTICES  
SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery	fuel oil	<ul style="list-style-type: none"> <li>Use spill and overflow protection</li> <li>Minimize run-on of storm water into the fueling area</li> </ul>
		Spills caused by topping off fuel tanks	fuel oil	<ul style="list-style-type: none"> <li>Cover fueling area</li> <li>Use dry cleanup methods rather than hosing down area</li> </ul>
		Hosing or washing down fuel area	fuel oil	<ul style="list-style-type: none"> <li>Implement proper spill prevention control program</li> </ul>
		Leaking storage tanks	fuel oil	<ul style="list-style-type: none"> <li>Implement adequate preventative maintenance program to preventive tank and line leaks</li> </ul>
		Rainfall running off fueling area, and rainfall running onto and off fueling area	fuel oil	<ul style="list-style-type: none"> <li>Inspect fueling areas regularly to detect problems before they occur</li> <li>Train employees on proper fueling, cleanup, and spill response techniques.</li> </ul>



The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

**a. Non-Structural BMPs**

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see Section A.8.b. below). Below is a list of non-structural BMPs that should be considered:

**i. Good Housekeeping**

Good housekeeping generally consist of practical procedures to maintain a clean and orderly facility.

**ii. Preventive Maintenance**

Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

**iii. Spill Response**

This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

**iv. Material Handling and Storage**

This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

**v. Employee Training**

This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

**vi. Waste Handling/Recycling**

This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

**vii. Recordkeeping and Internal Reporting**

This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

**viii. Erosion Control and Site Stabilization**

This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.

**ix. Inspections**

This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

**x. Quality Assurance**

This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

b. **Structural BMPs**

Where non-structural BMPs as identified in Section A.8.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

i. **Overhead Coverage**

This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

ii. **Retention Ponds**

This includes basins, ponds, surface impoundments, bermed areas, etc., that do not allow storm water to discharge from the facility.

iii. **Control Devices**

This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

iv. **Secondary Containment Structures**

This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

v. **Treatment**

This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc., that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

9. **Annual Comprehensive Site Compliance Evaluation**

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

a. A review of all visual observation records, inspection records, and sampling and analysis results.

b. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.

c. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.

d. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in Section A.10.e. for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this General Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions 9. and 10. of Section C. of this General Permit.

10. **SWPPP General Requirements**

a. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.

b. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

- c. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.
- d. Other than as provided in Provisions B.11, B.12, and E.2 of the General Permit, the SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this General Permit.
- e. When any part of the SWPPP is infeasible to implement by the deadlines specified in Provision E.2 or Sections A.1, A.9, A.10.c, and A.10.d of this General Permit due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.
- f. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

## SECTION B. MONITORING PROGRAM AND REPORTING REQUIREMENTS

### 1. Implementation Schedule

Each facility operator shall develop a written monitoring program for each facility covered by this General Permit in accordance with the following schedule:

- a. Facility operators beginning industrial activities before October 1, 1992 shall develop and implement a monitoring program no later than October 1, 1992. Facility operators beginning operations after October 1, 1992 shall develop and implement a monitoring program when the industrial activities begin.
- b. Facility operators that submitted a Notice Of Intent (NOI) pursuant to State Water Resources Control Board (State Water Board) Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing monitoring program and implement any necessary revisions to their monitoring program in a timely manner, but in no case later than August 1, 1992. These facility operators may use the monitoring results conducted in accordance with those expired general permits to satisfy the pollutant/parameter reduction requirements in Section B.5.c., Sampling and Analysis Exemptions and Reduction certifications in Section B.12., and Group Monitoring Sampling credits in B.15.k. For facilities beginning industrial activities after the adoption of this General Permit, the monitoring program shall be developed and implemented when the facility begins the industrial activities.

### 2. Objectives

The objectives of the monitoring program are to:

- a. Ensure that storm water discharges are in compliance with the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations specified in this General Permit.
- b. Ensure practices at the facility to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges are evaluated and revised to meet changing conditions.
- c. Aid in the implementation and revision of the SWPPP required by Section A of this General Permit.

- d. Measure the effectiveness of best management practices (BMPs) to prevent or reduce pollutants in storm water discharges and authorized non-storm water discharges. Much of the information necessary to develop the monitoring program, such as discharge locations, drainage areas, pollutant sources, etc., should be found in the Storm Water Pollution Prevention Plan (SWPPP). The facility's monitoring program shall be a written, site-specific document that shall be revised whenever appropriate and be readily available for review by employees or Regional Water Board inspectors.

3. Non-storm Water Discharge Visual Observations

- a. Facility operators shall visually observe all drainage areas within their facilities for the presence of unauthorized non-storm water discharges;
- b. Facility operators shall visually observe the facility's authorized non-storm water discharges and their sources;
- c. The visual observations required above shall occur quarterly, during daylight hours, on days with no storm water discharges, and during scheduled facility operating hours<sup>1</sup>. Quarterly visual observations shall be conducted in each of the following periods: January-March, April-June, July-September, and October-December. Facility operators shall conduct quarterly visual observations within 6-10 weeks of each other.
- d. Visual observations shall document the presence of any discolorations, stains, odors, floating materials, etc., as well as the source of any discharge. Records shall be maintained of the visual observation dates, locations observed, observations, and response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges. The SWPPP shall be revised, as necessary, and implemented in accordance with Section A of this General Permit.

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<sup>1</sup> "Scheduled facility operating hours" are the time periods when the facility is staffed to conduct any function related to industrial activity, but excluding time periods where only routine maintenance, emergency response, security, and/or janitorial services are performed.

4. Storm Water Discharge Visual Observations

- a. With the exception of those facilities described in Section B.4.d. below, facility operators shall visually observe storm water discharges from one storm event per month during the wet season (October 1-May 30). These visual observations shall occur during the first hour of discharge and at all discharge locations. Visual observations of stored or contained storm water shall occur at the time of release.
- b. Visual observations are only required of storm water discharges that occur during daylight hours that are preceded by at least three (3) working days<sup>2</sup> without storm water discharges and that occur during scheduled facility operating hours.
- c. Visual observations shall document the presence of any floating and suspended material, oil and grease, discolorations, turbidity, odor, and source of any pollutants. Records shall be maintained of observation dates, locations observed, observations, and response taken to reduce or prevent pollutants in storm water discharges. The SWPPP shall be revised, as necessary, and implemented in accordance with Section A of this General Permit.
- d. Feedlots (subject to Federal effluent limitations guidelines in 40 Code of Federal Regulations (CFR) Part 412) that are in compliance with Sections 2560 to 2565, Article 6, Chapter 15, Title 23, California Code of Regulations, and facility operators with storm water containment facilities shall conduct monthly inspections of their containment areas to detect leaks and ensure maintenance of adequate freeboard. Records shall be maintained of the inspection dates, observations, and any response taken to eliminate leaks and to maintain adequate freeboard.

5. Sampling and Analysis

- a. Facility operators shall collect storm water samples during the first hour of discharge from (1) the first storm event of the wet season, and (2) at least one other storm event in the wet season. All storm water discharge locations shall be sampled. Sampling of stored or contained storm water shall occur at the time the stored

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<sup>2</sup> Three (3) working days may be separated by non-working days such as weekends and holidays provided that no storm water discharges occur during the three (3) working days and the non-working days.

or contained storm water is released. Facility operators that do not collect samples from the first storm event of the wet season are still required to collect samples from two other storm events of the wet season and shall explain in the Annual Report why the first storm event was not sampled.

- b. Sample collection is only required of storm water discharges that occur during scheduled facility operating hours and that are preceded by at least (3) three working days without storm water discharge.
- c. The samples shall be analyzed for:
  - i. Total suspended solids (TSS) pH, specific conductance, and total organic carbon (TOC). Oil and grease (O&G) may be substituted for TOC; and
  - ii. Toxic chemicals and other pollutants that are likely to be present in storm water discharges in significant quantities. If these pollutants are not detected in significant quantities after two consecutive sampling events, the facility operator may eliminate the pollutant from future sample analysis until the pollutant is likely to be present again; and
  - iii. Other analytical parameters as listed in Table D (located at the end of this Section). These parameters are dependent on the facility's standard industrial classification (SIC) code. Facility operators are not required to analyze a parameter listed in Table D when the parameter is not already required to be analyzed pursuant to Section B.5.c.i. and ii. or B.6 of this General Permit, and either of the two following conditions are met: (1) the parameter has not been detected in significant quantities from the last two consecutive sampling events, or (2) the parameter is not likely to be present in storm water discharges and authorized non-storm water discharges in significant quantities based upon the facility operator's evaluation of the facilities industrial activities, potential pollutant sources, and SWPPP. Facility operators that do not analyze for the applicable Table D parameters shall certify in the Annual Report that the above conditions have been satisfied.
  - iv. Other parameters as required by the Regional Water Board.

6. Facilities Subject to Federal Storm Water Effluent Limitation Guidelines

Facility operators with facilities subject to Federal storm water effluent limitation guidelines, in addition to the requirements in Section B.5. above, must complete the following:

- a. Collect and analyze two samples for any pollutant specified in the appropriate category of 40 CFR Subchapter N. The sampling and analysis exemptions and reductions described in Section B.12. of this General Permit do not apply to these pollutants.
- b. Estimate or calculate the volume of storm water discharges from each drainage area;
- c. Estimate or calculate the mass of each regulated pollutant as defined in the appropriate category of 40 CFR Subchapter N; and
- d. Identify the individual(s) performing the estimates or calculations in accordance with Subsections b. and c. above.

7. Sample Storm Water Discharge Locations

- a. Facility operators shall visually observe and collect samples of storm water discharges from all drainage areas that represent the quality and quantity of the facility's storm water discharges from the storm event.
- b. If the facility's storm water discharges are commingled with run-on from surrounding areas, the facility operator should identify other visual observation and sample collection locations that have not been commingled by run-on and that represent the quality and quantity of the facility's storm water discharges from the storm event.
- c. If visual observation and sample collection locations are difficult to observe or sample (e.g., sheet flow, submerged outfalls), facility operators shall identify and collect samples from other locations that represent the quality and quantity of the facility's storm water discharges from the storm event.
- d. Facility operators that determine that the industrial activities and BMPs within two or more drainage areas are substantially identical may either (i) collect samples from a reduced number of substantially identical



drainage areas, or (ii) collect samples from each substantially identical drainage area and analyze a combined sample from each substantially identical drainage area. Facility operators must document such a determination in the annual report.

8. Visual Observation and Sample Collection Exceptions

Facility operators are required to be prepared to collect samples and conduct visual observations at the beginning of the wet season (October 1) and throughout the wet season until the minimum requirements of Sections B.4. and B.5. are completed with the following exceptions:

- a. A facility operator is not required to collect a sample and conduct visual observations in accordance with Section B.4 and Section B.5 due to dangerous weather conditions, such as flooding, electrical storm, etc., when storm water discharges begin after scheduled facility operating hours or when storm water discharges are not preceded by three working days without discharge. Visual observations are only required during daylight hours. Facility operators that do not collect the required samples or visual observations during a wet season due to these exceptions shall include an explanation in the Annual Report why the sampling or visual observations could not be conducted.
- b. A facility operator may conduct visual observations and sample collection more than one hour after discharge begins if the facility operator determines that the objectives of this Section will be better satisfied. The facility operator shall include an explanation in the Annual Report why the visual observations and sample collection should be conducted after the first hour of discharge.

9. Alternative Monitoring Procedures

Facility operators may propose an alternative monitoring program that meets Section B.2 monitoring program objectives for approval by the Regional Water Board. Facility operators shall continue to comply with the monitoring requirements of this Section and may not implement an alternative monitoring plan until the alternative monitoring plan is approved by the Regional Water Board. Alternative monitoring plans are subject to modification by the Regional Water Boards.

10. Monitoring Methods

- a. Facility operators shall explain how the facility's monitoring program will satisfy the monitoring program objectives of Section B.2. This shall include:
  - i. Rationale and description of the visual observation methods, location, and frequency.
  - ii. Rationale and description of the sampling methods, location, and frequency; and
  - iii. Identification of the analytical methods and corresponding method detection limits used to detect pollutants in storm water discharges. This shall include justification that the method detection limits are adequate to satisfy the objectives of the monitoring program.
- b. All sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including a facility operator's own field instruments for measuring pH and Electro Conductivity) shall be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. All laboratory analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this General Permit or by the Regional Water Board. All metals shall be reported as total metals. With the exception of analysis conducted by facility operators, all laboratory analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. Facility operators may conduct their own sample analyses if the facility operator has sufficient capability (qualified employees, laboratory equipment, etc.) to adequately perform the test procedures.

11. Inactive Mining Operations

Inactive mining operations are defined in Attachment 1 of this General Permit. Where comprehensive site compliance evaluations, non-storm water discharge visual observations, storm water discharge visual observations, and storm water sampling are impracticable, facility operators of inactive mining operations may instead obtain certification once every three years by a Registered Professional Engineer that an SWPPP has been prepared for the facility and is being implemented in accordance with the requirements of this General Permit. By means of these certifications, the

Registered Professional Engineer having examined the facility and being familiar with the provisions of this General Permit shall attest that the SWPPP has been prepared in accordance with good engineering practices. Facility operators of mining operations who cannot obtain a certification because of noncompliance must notify the appropriate Regional Water Board and, upon request, the local agency which receives the storm water discharge.

## 12. Sampling and Analysis Exemptions and Reductions

A facility operator who qualifies for sampling and analysis exemptions, as described below in Section B.12.a.i., or who qualifies for reduced sampling and analysis, as described below in Section B.12.b., must submit the appropriate certifications and required documentation to the Regional Water Boards prior to the wet season (October 1) and recertify as part of the Annual Report submittal. A facility operator that qualifies for either the Regional Water Board or local agency certification programs, as described below in Section B.12.a.ii. and iii., shall submit certification and documentation in accordance with the requirements of those programs. Facility operators who provide certifications in accordance with this Section are still required to comply with all other monitoring program and reporting requirements. Facility operators shall prepare and submit their certifications using forms and instructions provided by the State Water Board, Regional Water Board, or local agency or shall submit their information on a form that contains equivalent information. Facility operators whose facility no longer meets the certification conditions must notify the Regional Water Boards (and local agency) within 30 days and immediately comply with the Section B.5. sampling and analysis requirements. Should a Regional Water Board (or local agency) determine that a certification does not meet the conditions set forth below, facility operators must immediately comply with the Section B.5. sampling and analysis requirements.

### a. Sampling and Analysis Exemptions

A facility operator is not required to collect and analyze samples in accordance with Section B.5. if the facility operator meets all of the conditions of one of the following certification programs:

#### i. No Exposure Certification (NEC)

This exemption is designed primarily for those facilities where all industrial activities are conducted inside buildings and where all materials stored and handled are not exposed to storm water.

To qualify for this exemption, facility operators must certify that their facilities meet all of the following conditions:

- (1) All prohibited non-storm water discharges have been eliminated or otherwise permitted.
- (2) All authorized non-storm water discharges have been identified and addressed in the SWPPP.
- (3) All areas of past exposure have been inspected and cleaned, as appropriate.
- (4) All significant materials related to industrial activity (including waste materials) are not exposed to storm water or authorized non-storm water discharges.
- (5) All industrial activities and industrial equipment are not exposed to storm water or authorized non-storm water discharges.
- (6) There is no exposure of storm water to significant materials associated with industrial activity through other direct or indirect pathways such as from industrial activities that generate dust and particulates.
- (7) There is periodic re-evaluation of the facility to ensure conditions (1), (2), (4), (5), and (6) above are continuously met. At a minimum, re-evaluation shall be conducted once a year.

#### ii. Regional Water Board Certification Programs

The Regional Water Board may grant an exemption to the Section B.5. Sampling and Analysis Requirements if it determines a facility operator has met the conditions set forth in a Regional Water Board certification program. Regional Water Board certification programs may include conditions to (1) exempt facility operators whose facilities infrequently discharge storm water to waters of the United States, and (2) exempt facility operators that demonstrate compliance with the terms and conditions of this General Permit.

#### iii. Local Agency Certifications

A local agency may develop a local agency certification program. Such programs must be approved by the Regional Water Board. An approved local agency program may either grant an exemption



from the Section B.5. Sampling and Analysis Requirements or reduce the frequency of sampling if it determines that a facility operator has demonstrated compliance with the terms and conditions of this General Permit.

b. Sampling and Analysis Reduction

- i. A facility operator may reduce the number of sampling events required to be sampled for the remaining term of this General Permit if the facility operator provides certification that the following conditions have been met:
  - (1) The facility operator has collected and analyzed samples from a minimum of six storm events from all required drainage areas;
  - (2) All prohibited non-storm water discharges have been eliminated or otherwise permitted;
  - (3) The facility operator demonstrates compliance with the terms and conditions of the General Permit for the previous two years (i.e., completed Annual Reports, performed visual observations, implemented appropriate BMPs, etc.);
  - (4) The facility operator demonstrates that the facility's storm water discharges and authorized non-storm water discharges do not contain significant quantities of pollutants; and
  - (5) Conditions (2), (3), and (4) above are expected to remain in effect for a minimum of one year after filing the certification.
- ii. Unless otherwise instructed by the Regional Water Board, facility operators shall collect and analyze samples from two additional storm events during the remaining term of this General Permit in accordance with Table C below. Facility operators shall collect samples of the first storm event of the wet season. Facility operators that do not collect samples from the first storm event of the wet season shall collect samples from another storm event during the same wet season. Facility operators that do not collect a sample in a required wet season shall collect the sample from another storm event in the next wet season. Facility operators shall explain in the Annual Report why the first storm

event of a wet season was not sampled or a sample was not taken from any storm event in accordance with the Table C schedule.

Table C  
REDUCED MONITORING SAMPLING SCHEDULE

Facility Operator Filing Sampling Reduction Certification By	Samples Shall be Collected and Analyzed in These Wet Seasons	
	Sample 1	Sample 2
Sept. 1, 1997	Oct. 1, 1997-May 31, 1998	Oct. 1, 1999-May 31, 2000
Sept. 1, 1998	Oct. 1, 1998-May 31, 1999	Oct. 1, 2000-May 31, 2001
Sept. 1, 1999	Oct. 1, 1999-May 31, 2000	Oct. 1, 2001-May 31, 2002
Sept. 1, 2000	Oct. 1, 2000-May 31, 2001	Oct. 1, 2002-May 31, 2003
Sept. 1, 2001	Oct. 1, 2001-May 31, 2002	Oct. 1, 2003-May 31, 2004

13. Records

Records of all storm water monitoring information and copies of all reports (including the Annual Reports) required by this General Permit shall be retained for a period of at least five years. These records shall include:

- a. The date, place, and time of site inspections, sampling, visual observations, and/or measurements;
- b. The individual(s) who performed the site inspections, sampling, visual observations, and or measurements;
- c. Flow measurements or estimates (if required by Section B.6);
- d. The date and approximate time of analyses;
- e. The individual(s) who performed the analyses;
- f. Analytical results, method detection limits, and the analytical techniques or methods used;
- g. Quality assurance/quality control records and results;
- h. Non-storm water discharge inspections and visual observations and storm water discharge visual observation records (see Sections B.3. and 4.);
- i. Visual observation and sample collection exception records (see Section B.5.a, 7.d, 8, and 12.b.ii.);

- j. All calibration and maintenance records of on-site instruments used;
- k. All Sampling and Analysis Exemption and Reduction certifications and supporting documentation (see Section B.12);
- l. The records of any corrective actions and follow-up activities that resulted from the visual observations.

**14. Annual Report**

All facility operators shall submit an Annual Report by July 1 of each year to the Executive Officer of the Regional Water Board responsible for the area in which the facility is located and to the local agency (if requested).

The report shall include a summary of visual observations and sampling results, an evaluation of the visual observation and sampling and analysis results, laboratory reports, the Annual Comprehensive Site Compliance Evaluation Report required in Section A.9., an explanation of why a facility did not implement any activities required by the General Permit (if not already included in the Evaluation Report), and records specified in Section B.13.1. The method detection limit of each analytical parameter shall be included. Analytical results that are less than the method detection limit shall be reported as "less than the method detection limit." The Annual Report shall be signed and certified in accordance with Standard Provisions 9. and 10. of Section C of this General Permit. Facility operators shall prepare and submit their Annual Reports using the annual report forms provided by the State Water Board or Regional Water Board or shall submit their information on a form that contains equivalent information.

**15. Group Monitoring**

Facility operators may participate in group monitoring as described below. A facility operator that participates in group monitoring shall develop and implement a written site-specific SWPPP and monitoring program in accordance with the General Permit and must satisfy any group monitoring requirements. Group monitoring shall be subject to the following requirements:

- a. A group monitoring plan (GMP) shall be developed and implemented by a group leader representing a group of similar facility operators regulated by this General Permit or by a local agency which holds an NPDES permit (local agency permittee) for a municipal separate storm sewer system. GMPs with participants that discharge

storm water within the boundaries of a single Regional Water Board shall be approved by that Regional Water Board. GMPs with participants that discharge storm water within the boundaries of multiple Regional Water Boards shall be approved by the State Water Board. The State Water Board and/or Regional Water Board(s) may disapprove a facility's participation in a GMP or require a GMP participant to conduct additional monitoring activities.

- b. At least two samples from each GMP participant shall be collected and analyzed in accordance with Section B.5. over the five-year period of this General Permit. The two sample minimum applies to new and existing members. The group leader or local agency permittee shall schedule sampling to meet the following conditions: (i) to evenly distribute the sample collection over the five-year term of this General Permit, and (ii) to collect the two samples at each participant's facility in different and non-consecutive wet seasons. New participants who join in Years 4 and 5 of this General Permit are not subject to Condition (ii) above. Group leaders shall explain in the annual Group Evaluation Report why any scheduled samples were not collected and reschedule the sampling so that all required samples are collected during the term of this General Permit.
- c. The group leader or local agency permittee must have the appropriate resources to develop and implement the GMP. The group leader or local agency permittee must also have the authority to terminate any participant who is not complying with this General Permit and the GMP.
- d. The group leader or local agency permittee is responsible for:
  - i. Developing, implementing, and revising the GMP;
  - ii. Developing and submitting an annual Group Evaluation Report to the State Water Board and/or Regional Water Board by August 1 of each year that includes:
    - (1) An evaluation and summary of all group monitoring data,
    - (2) An evaluation of the overall performance of the GMP participants in complying with this General Permit and the GMP,
    - (3) Recommended baseline and site-specific RMPs that should be considered by each participant based upon Items (1) and (2) above, and

- (4) A copy of each evaluation report and recommended BMPs as required in Section B.15.d.v. below.
- iii. Recommending appropriate BMPs to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges;
  - iv. Assisting each participant in completing their Annual Comprehensive Site Compliance Evaluation and Annual Report;
  - v. Conducting a minimum of two on-site inspections of each participant's facility (it is recommended that these inspections be scheduled during the Annual Comprehensive Site Compliance Evaluation) during the term of this General Permit to evaluate the participant's compliance with this General Permit and the GMP, and to recommend any additional BMPs necessary to achieve compliance with this General Permit. Participants that join in Years 4 and 5 shall be scheduled for one evaluation. A copy of the evaluation and recommended BMPs shall be provided to the participants;
  - vi. Submitting a GMP (or revisions, as necessary), to the appropriate Regional Water Board(s) and State Water Board no later than September 1, 1997 (or August 1 in subsequent years). Once approved, a group leader or local agency permittee shall submit a letter of intent by August 1 of each year to continue the approved GMP. The letter of intent must include a roster of participants, participant's Waste Discharge Identification number (WDID#), updated sampling schedules, and any other revisions to the GMP;
  - vii. Revising the GMP as instructed by the Regional Water Board or the State Water Board, and
  - viii. Providing the State Water Board and/or Regional Water Board with quarterly updates of any new or deleted participants and corresponding changes in the sampling and inspection schedule.
- e. The GMP shall:
- i. Identify the participants of the GMP by name, location, and WDID number;
  - ii. Include a narrative description summarizing the industrial activities of participants of the GMP and

- explain why the participants, as a whole, have sufficiently similar industrial activities and BMP's to be covered by a group monitoring plan;
- iii. Include a list of typical potential pollutant sources associated with the group participant's facilities and recommended baseline BMPs to prevent or reduce pollutants associated with industrial activity in the storm water discharges and authorized non-storm water discharges;
  - iv. Provide a five-year sampling and inspection schedule in accordance with Subsections b. and d.v. above.
  - v. Identify the pollutants associated with industrial activity that shall be analyzed at each participant's facility in accordance with Section B.5. The selection of these pollutants shall be based upon an assessment of each facility's potential pollutant sources and likelihood that pollutants associated with industrial activity will be present in storm water discharges and authorized non-storm water discharges in significant quantities.
  - f. Sampling and analysis shall be conducted in accordance with the applicable requirements of this Section.
  - g. Unless otherwise instructed by the Regional Water Board or the State Water Board Executive Director, the GMPs shall be implemented at the beginning of the wet season (October 1).
  - h. All participants in an approved GMP that have not been selected to sample in a particular wet season are required to comply with all other monitoring program and reporting requirements of this Section including the submittal of an Annual Report by July 1 of each year to the appropriate Regional Water Board.
  - i. If any GMP includes participants which are subject to Federal storm water effluent limitation guidelines, each of those participants must perform the monitoring described in Section B.6. and submit the results of the monitoring to the appropriate Regional Water Board in the facility operator's Annual Report.
  - j. GMPs and Group Evaluation Reports should be prepared in accordance with State Water Board (or Regional Water Board) guidance.

k. GMP participants may receive sampling credits in accordance with the following conditions:

i. Current or prior participants (group participants) of approved GMPs, who have not collected and analyzed the six samples necessary to qualify for the Section B.7.b.1.(1) Sampling and Analysis Reduction, may substitute credit earned through participation in a GMP for up to four of the six required samples. Credits for GMP participation shall be calculated as follows:

- (1) Credits may only be earned in years of participation where the GMP participant was not scheduled to sample and the GMP was approved.
- (2) One credit will be earned for each year of valid GMP participation.
- (3) One additional credit may be earned for each year the overall GMP sample collection performance is greater than 75 percent.

ii. GMP participants substituting credit as calculated above shall provide proof of GMP participation and certification that all the conditions in Section B.12.b.1. have been met. GMP participants substituting credits in accordance with Section B.15.k.1.(3) shall also provide GMP sample collection performance documentation.

iii. GMP participants that qualify for Sampling and Analysis Reduction and have collected and analyzed one or more samples after October 1, 1997 shall only be required to collect one additional sample during the remainder of this General Permit. The sample shall be collected in accordance with the "Sample 2" schedule in Table C of this Section.

n. Group leaders shall furnish, within 60 days of receiving a request from the State Water Board or Regional Water Board, any GMP information and documentation necessary to verify the Section B.15.k. sampling credits. Group leaders may also provide this information and documentation to the group participants.

16. Watershed Monitoring Option

Regional Water Boards may approve proposals to substitute watershed monitoring for some or all of the requirements of this Section if the Regional Water Board finds that the watershed monitoring will provide substantially similar monitoring information in evaluating facility operator compliance with the requirements of this General Permit.

TABLE D  
ADDITIONAL ANALYTICAL PARAMETERS

Subsector	SIC	Activity Represented	Parameters
<b>SECTOR A. TIMBER PRODUCTS</b>			
A1	2421	General Sawmills and Planing Mills	COD:TSS:Zn
A2	2491	Wood Preserving	As:Cu
A3	2411	Log Storage and Handling	TSS
A4	2426	Hardwood Dimension and Flooring Mills	COD:TSS
A4	2429	Special Product Sawmills, Not Elsewhere Classified	COD:TSS
A4	243X	Millwork, Veneer, Plywood, and Structural Wood (except 2434--Wood Kitchen Cabinet Manufacturers)	COD:TSS
A4	244X	Wood Containers	COD:TSS
A4	245X	Wood Buildings and Mobile Homes	COD:TSS
A4	2493	Reconstituted Wood Products	COD:TSS
A4	2499	Wood Products, Not Elsewhere Classified	COD:TSS
<b>SECTOR B. PAPER AND ALLIED PRODUCTS MANUFACTURING</b>			
B1	261X	Pulp Mills	
B2	262X	Paper Mills	
B3	263X	Paperboard Mills	COD
B4	265X	Paperboard Containers and Boxes	
B5	267X	Converted Paper and Paperboard Products, Except Containers and Boxes	
<b>SECTOR C. CHEMICAL AND ALLIED PRODUCTS MANUFACTURING</b>			
C1	281X	Industrial Inorganic Chemicals	Al:Fe:N+N
C2	282X	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic, and Other Manmade Fibers Except Glass	Zn
C4	284X	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations	N+N:N
C5	285X	Paints, Varnishes, Lacquers, Enamels, and Allied Products	
C6	286X	Industrial Organic Chemicals	
C7	287X	Nitrogenous and Phosphatic Basic Fertilizers, Mixed Fertilizer, Pesticides, and Other Agricultural Chemicals	Fe:N+N:Pb:Zn:P
C8	289X	Miscellaneous Chemical Products	
	3952	Inks and Paints, Including China Painting Enamels, India Ink, (limited to list) Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints, and Artist's Watercolors	
<b>SECTOR D. ASPHALT PAVING/ROOFING MATERIALS MANUFACTURERS AND LUBRICANT MANUFACTURERS</b>			
D1	X	Asphalt Paving and Roofing Materials	TSS
D2	2992	Lubricating Oils and Greases	

Parameter Name				
Al - Aluminum	Cd - Cadmium	Cu - Copper	Mg - Magnesium	BOD - Biochemical Oxygen Demand
As - Arsenic	CN - Cyanide	Fe - Iron	Ag - Silver	N + N - Nitrate & Nitrite Nitrogen
NH <sub>4</sub> - Ammonia	Hg - Mercury	P - Phosphorus	Sr - Strontium	Pb - Lead
Zn - Zinc	TSS - Total Suspended Solids	COD - Chemical Oxygen Demand		



Subsector	SIC	Activity Represented	Parameters
<b>SECTOR E. GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCT MANUFACTURING</b>			
1	3211	Flat Glass	
1	322X	Glass and Glassware, Pressed or Blown	
1	323X	Glass Products Made of Purchased Glass	
2	3241	Hydraulic Cement	
3	325X	Structural Clay Products	Al
3	326X	Pottery and Related Products	Al
3	3297	Non-Clay Refractories	Al
4	327X	Concrete, Gypsum, and Plaster Products (Except Lime) (except 3274)	TSS;Fe
4	3295	Minerals and Earths, Ground, or Otherwise Treated	TSS;Fe
<b>SECTOR F. PRIMARY METALS</b>			
1	331X	Steel Works, Blast Furnaces, Rolling & Finishing Mill	Al;Zn
2	332X	Iron and Steel Foundries	Al;TSS;Cu;Fe;Zn
3	333X	Primary Smelting and Refining of Nonferrous Metals	
4	334X	Secondary Smelting and Refining of Nonferrous Metals	
5	335X	Rolling, Drawing, and Extruding of Nonferrous Metals	Cu;Zn
6	336X	Nonferrous Foundries (Castings)	Cu;Zn
7	339X	Miscellaneous Primary Metal Products	
<b>SECTOR G. METAL MINING (ORE MINING AND DRESSING) EXCEPT INACTIVE METAL MINING ACTIVITIES ON FEDERAL LANDS WHERE AN OPERATOR CANNOT BE IDENTIFIED</b>			
G1	101X	Iron Ores	
G2	102X	Copper Ores	TSS;COD;N+P
G3	103X	Lead and Zinc Ores	
G4	104X	Gold and Silver Ores	
G5	106X	Ferrous Alloy Ores, Except Vanadium	
G6	108X	Metal Mining Services	
G7	109X	Miscellaneous Metal Ores	
<b>SECTOR H. COAL MINES AND COAL MINING-RELATED FACILITIES</b>			
NA	12XX	Coal Mines and Coal Mining-Related Facilities	TSS;Al;Fe
<b>SECTOR I. COAL MINES AND COAL MINING-RELATED FACILITIES</b>			
I1	131X	Crude Petroleum and Natural Gas	
I2	132X	Natural Gas Liquids	
I3	138X	Oil and Gas Field Services	
<b>SECTOR J. MINERAL MINING AND DRESSING EXCEPT INACTIVE MINERAL MINING ACTIVITIES OCCURRING ON FEDERAL LANDS WHERE AN OPERATOR CANNOT BE IDENTIFIED</b>			
J1	141X	Dimension Stone	TSS
J1	142X	Crushed and Broken Stone, Including Rip Rap	TSS
J1	148X	Nonmetallic Minerals, Except Fuels	TSS
J2	144X	Sand and Gravel	TSS;N+P
J3	145X	Clay, Ceramic, and Refractory Materials	
J4	147X	Chemical and Fertilizer Mineral Mining	
J4	149X	Miscellaneous Nonmetallic Minerals, Except Fuels	

Subsector	SIC	Activity Represented	Parameters
<b>SECTOR K. HAZARDOUS WASTE TREATMENT STORAGE OR DISPOSAL FACILITIES</b>			
NA	4953	Hazardous Waste Treatment Storage or Disposal	NH;Mg;COD;As Cd;CN;Pb Hg;Se;Ag
<b>SECTOR L. LANDFILLS AND LAND APPLICATION SITES</b>			
NA	4953	Landfills and Land Application Sites That Receive or Have Received Industrial Wastes, Except Inactive Landfills or Land Application Sites Occurring on Federal Lands Where an Operator Cannot be Identified	TSS;Fe
<b>SECTOR M. AUTOMOBILE SALVAGE YARDS</b>			
NA	5015	Facilities Engaged in Dismantling or Wrecking Used Motor Vehicles for Parts Recycling or Resale and for Scrap	TSS;Fe;Pb;Al
<b>SECTOR N. SCRAP RECYCLING FACILITIES</b>			
NA	5093	Processing, Reclaiming, and Wholesale Distribution of Scrap and Waste Materials	TSS;Fe;Pb Al;Cu;Zn;COD
<b>SECTOR O. STEAM ELECTRIC GENERATING FACILITIES</b>			
NA	4911	Steam Electric Power Generating Facilities	Fe
<b>SECTOR P. LAND TRANSPORTATION FACILITIES THAT HAVE VEHICLE AND EQUIPMENT MAINTENANCE SHOPS AND/OR EQUIPMENT CLEANING OPERATIONS</b>			
P1	40XX	Railroad Transportation	
P2	41XX	Local and Highway Passenger Transportation	
P3	42XX	Motor Freight Transportation and Warehousing	
P4	43XX	United States Postal Service	
P5	5171	Petroleum Bulk Stations and Terminals	
<b>SECTOR Q. WATER TRANSPORTATION FACILITIES THAT HAVE VEHICLE (VESSEL) AND EQUIPMENT MAINTENANCE SHOPS AND/OR EQUIPMENT CLEANING OPERATIONS</b>			
NA	44XX	Water Transportation	Al;Fe;Pb;Zn
<b>SECTOR R. SHIP AND BOAT BUILDING OR REPAIRING YARDS</b>			
NA	373X	Ship and Boat Building or Repairing Yards	
<b>SECTOR S. AIR TRANSPORTATION FACILITIES</b>			
NA	45XX	Air Transportation Facilities That Have Vehicle Maintenance Shops, Material Handling Facilities, Equipment Cleaning Operations, or Airport and/or Aircraft Deicing/Anti-icing Operations	BOD;COD;NH <sub>3</sub> -pH

Subsector	SIC	Activity Represented	Parameters
<b>SECTOR T. TREATMENT WORKS</b>			
NA	4952	Treatment Works Treating Domestic Sewage or Any Other Sewage Sludge or Wastewater Treatment Device or System Used in the Storage, treatment, recycling, or Reclamation of Municipal or Domestic Sewage with a Design Flow of 1.0 MGD or More or Required to Have an Approved Pretreatment Program	
<b>SECTOR U. FOOD AND KINDRED PRODUCTS</b>			
U1	201X	Meat Products	
U2	202X	Dairy Products	
U3	203X	Canned, Frozen and Preserved Fruits, Vegetables and Food Specialties	
U4	204X	Grain Mill Products	TSS
U5	205X	Bakery Products	
U6	206X	Sugar and Confectionery Products	
U7	207X	Fats and Oils	BOD; COD; TSS; N+N
U8	208X	Beverages	
U9	209X	Miscellaneous Food Preparations and Kindred Products	
NA	21XX	Tobacco Products	
<b>SECTOR V. TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING</b>			
V1	22XX	Textile Mill Products	
V2	23XX	Apparel and Other Finished Products Made From Fabrics and Similar Materials	
<b>SECTOR W. FURNITURE AND FIXTURES</b>			
NA	25XX	Furniture and Fixtures	
NA	2434	Wood Kitchen Cabinets	
<b>SECTOR X. PRINTING AND PUBLISHING</b>			
NA	2732	Book Printing	
NA	2752	Commercial Printing, Lithographic	
NA	2754	Commercial Printing, Gravure	
NA	2759	Commercial Printing, Not Elsewhere Classified	
NA	2796	Platemaking and Related Services	
<b>SECTOR Y. RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISC. MANUFACTURING INDUSTRIES</b>			
Y1	301X	Tires and Inner Tubes	Zn
Y1	302X	Rubber and Plastics Footwear	Zn
Y1	305X	Gaskets, Packing, and Sealing Devices and Rubber and Plastics Hose and Belting	Zn
Y1	306X	Fabricated Rubber Products, Not Elsewhere Classified	Zn
Y2	308X	Miscellaneous Plastics Products	

Subsector	SIC	Activity Represented	Parameters
Y2	393X	Musical Instruments	
Y2	394X	Dolls, Toys, Games, and Sporting and Athletic Goods	
Y2	395X	Pens, Pencils, and Other Artists' Material	
Y2	396X	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Novelties, Except Precious Metal	
Y2	399X	Miscellaneous Manufacturing Industries	
<b>SECTOR Z. LEATHER TANNING AND FINISHING</b>			
NA	311X	Leather Tanning and Finishing	
NA	NA	Facilities that Make Fertilizer Solely From Leather Scraps and Leather Dust	
<b>SECTOR AA. FABRICATED METAL PRODUCTS</b>			
AA1	3429	Hardware, Not Elsewhere Classified	Zn; N+N; Fe; Al
AA1	3441	Fabricated Structural Metal	Zn; N+N; Fe; Al
AA1	3442	Metal Doors, Sash, Frames, Molding, and Trim	Zn; N+N; Fe; Al
AA1	3443	Fabricated Plate Work (Boiler Shops)	Zn; N+N; Fe; Al
AA1	3444	Sheet Metal Work	Zn; N+N; Fe; Al
AA1	3451	Screw Machine Products	Zn; N+N; Fe; Al
AA1	3452	Bolts, Nuts, Screws, Rivets, and Washers	Zn; N+N; Fe; Al
AA1	3462	Iron and Steel Forgings	Zn; N+N; Fe; Al
AA1	3471	Electroplating, Plating, Polishing, Anodizing, and Coloring	Zn; N+N; Fe; Al
	3494	Valves and Pipe Fittings, Not Elsewhere Classified	Zn; N+N; Fe; Al
AA1	3496	Miscellaneous Fabricated Wire Products	Zn; N+N; Fe; Al
AA1	3499	Fabricated Metal Products, Not Elsewhere Classified	Zn; N+N; Fe; Al
AA1	391X	Jewelry, Silverware, and Plated Ware	Z N+N; Fe; Al
AA2	3479	Coating, Engraving, and Allied Services	Zn; N+N
<b>SECTOR AB. TRANSPORTATION EQUIPMENT, INDUSTRIAL OR COMMERCIAL MACHINERY</b>			
NA	35XX	Industrial and Commercial Machinery (except Computer and (except 357X) Office Equipment)	
NA	37XX	Transportation Equipment (except Ship and Boat Building and (except 373X) Repairing)	
<b>SECTOR AC. ELECTRONIC, ELECTRICAL, PHOTOGRAPHIC, AND OPTICAL GOODS</b>			
NA	36XX	Electronic and Other Electrical Equipment and Components, Except Computer Equipment	
NA	38XX	Measuring, Analyzing, and Controlling Instruments; Photographic, Medical, and Optical Goods, Watches and Clocks	
NA	357X	Computer and Office Equipment	

Section C: STANDARD PROVISIONS

1. Duty to Comply

The facility operator must comply with all of the conditions of this General Permit. Any General Permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act and is grounds for (a) enforcement action for (b) General Permit termination, revocation and reissuance, or modification or (c) denial of a General Permit renewal application.

The facility operator shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this General Permit has not yet been modified to incorporate the requirement.

2. General Permit Actions

This General Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the facility operator for a General Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any General Permit condition.

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this General Permit, this General Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition, and the facility operator so notified.

3. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a facility operator in an enforcement action that it would have been necessary to halt or reduce the general permitted activity in order to maintain compliance with the conditions of this General Permit.

4. Duty to Mitigate

The facility operator shall take all responsible steps to minimize or prevent any discharge in violation of this General Permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Proper Operation and Maintenance

The facility operator at all times shall properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the facility operator to achieve compliance with the conditions of this General Permit and with the requirements of storm water pollution prevention plans (SWPPPs). Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of backup or auxiliary facilities or similar systems installed by a facility operator when necessary to achieve compliance with the conditions of this General Permit.

6. Property Rights

This General Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

7. Duty to Provide Information

The facility operator shall furnish the Regional Water Quality Control Board (Regional Water Board), State Water Resources Control Board (State Water Board), U.S. Environmental Protection Agency (U.S. EPA), or local storm water management agency, within a reasonable time specified by the agencies, any requested information to determine compliance with this General Permit. The facility operator shall also furnish, upon request, copies of records required to be kept by this General Permit.

8. Inspection and Entry

The facility operator shall allow the Regional Water Board, State Water Board, U.S. EPA, and local storm water management agency, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the facility operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this General Permit;
- b. Have access to and copy at reasonable times any records that must be kept under the conditions of this General Permit;



- c. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment) that are related to or may impact storm water discharge or authorized non-storm water discharge; and
- d. Conduct monitoring activities at reasonable times for the purpose of ensuring General Permit compliance.

9. Signatory Requirements

- a. All Notices of Intent (NOIs) submitted to the State Water Board shall be signed as follows:
  - (1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (b) the manager of the facility if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
  - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
  - (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. The principal executive officer of a Federal agency includes the chief executive officer of the agency or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).
- b. All reports, certifications, or other information required by the General Permit or requested by the Regional Water Board, State Water Board, U.S. EPA, or local storm water management agency shall be signed by a person described above or by a duly authorized representative. A person is a duly authorized representative only if:
  - (1) The authorization is made in writing by a person described above and retained as part of the SWPPP.
  - (2) The authorization specifies either an individual or a position having responsibility for the

overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

- (3) If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be attached to the SWPPP prior to submittal of any reports, certifications, or information signed by the authorized representative.

10. Certification

Any person signing documents under Provision 9. above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Reporting Requirements

- a. Planned changes: The facility operator shall give advance notice to the Regional Water Board and local storm water management agency of any planned physical alteration or additions to the general permitted facility. Notice is required under this provision only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged.
- b. Anticipated noncompliance: The facility operator will give advance notice to the Regional Water Board and local storm water management agency of any planned changes at the permitted facility which may result in noncompliance with General Permit requirements.

- c. Compliance schedules: Reports of compliance or noncompliance with or any progress reports on interim and final requirements contained in any compliance schedule of this General Permit shall be submitted no later than 14 days following each scheduled date.
- d. Noncompliance reporting: The facility operator shall report any noncompliance at the time monitoring reports are submitted. The written submission shall contain (1) a description of the noncompliance and its cause; (2) the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and (3) steps taken or planned to reduce and prevent recurrence of the noncompliance.

12. Oil and Hazardous Substance Liability

Nothing in this General Permit shall be construed to preclude the institution of any legal action or relieve the facility operator from any responsibilities, liabilities, or penalties to which the facility operator is or may be subject under Section 311 of the CWA.

13. Severability

The provisions of this General Permit are severable; and if any provision of this General Permit or the application of any provision of this General Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this General Permit shall not be affected thereby.

14. Reopener Clause

This General Permit may be modified, revoked, and reissued, or terminated for cause due to promulgation of amended regulations, receipt of U.S. EPA guidance concerning regulated activities, judicial decision, or in accordance with 40 CFR 122.62, 122.63, 122.64, and 124.5. This General Permit may be reopened to modify the provisions regarding authorized non-storm water discharges specified in Section D. Special Conditions.

15. Penalties for Violations of General Permit Conditions.

- a. Section 309 of the CWA provides significant penalties for any person who violates a General Permit condition implementing Sections 301, 302, 306, 307 308, 318, or 405 of the CWA, or any General Permit condition or limitation implementing any such section in a General Permit issued under Section 402. Any person who

violates any General Permit condition of this General Permit is subject to a civil penalty not to exceed \$25,000 per day of such violation, as well as any other appropriate sanction provided by Section 309 of the CWA.

- b. The Porter-Cologne Water Quality Control Act also provides for civil and criminal penalties in some cases greater than those under the CWA.

16. Availability

A copy of this General Permit shall be maintained at the facility and be available at all times to the appropriate facility personnel and to Regional Water Board and local agency inspectors.

17. Transfers

This General Permit is not transferable from one facility operator to another facility operator nor may it be transferred from one location to another location. A new facility operator of an existing facility must submit an NOI in accordance with the requirements of this General Permit to be authorized to discharge under this General Permit.

18. Continuation of Expired General Permit

This General Permit continues in force and effect until a new general permit is issued or the State Water Board rescinds the General Permit. Facility operators authorized to discharge under the expiring general permit are required to file an NOI to be covered by the reissued General Permit.

19. Penalties for Falsification of Reports

Section 309(c)(4) of the CWA provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two years, or by both.

## ATTACHMENT B

### BIOSOLIDS USE AND DISPOSAL REQUIREMENTS

1. All biosolids generated by the Discharger shall be reused or disposed of in compliance with the applicable portions of:
  - a. 40 CFR 503: for biosolids that are land applied, placed in surface disposal sites (dedicated land disposal sites or monofills), or incinerated; 40 CFR 503 Subpart B (land application) applies to biosolids placed on the land for the purpose of providing nutrients or conditioning the soil for crops or vegetation. 40 CFR 503 Subpart C (surface disposal) applies to biosolids placed on the land for the purpose of disposal.
  - b. 40 CFR 258: for biosolids disposed of in Municipal Solid Waste landfills.
  - c. 40 CFR 257: for all biosolids disposal practices not covered under 40 CFR 258 or 503.
2. The Discharger is responsible for assuring that all biosolids from its facility are used or disposed of in accordance with 40 CFR 503, whether the Discharger reuses or disposes of the biosolids itself or transfers them to another party for further treatment, reuse, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, or disposers of the requirements they must meet under 40 CFR 503.
3. Duty to mitigate: The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which may adversely impact human health or the environment.
4. No biosolids shall be allowed to enter wetland or other waters of the United States.
5. Biosolids treatment, storage, and use or disposal shall not contaminate groundwater.
6. Biosolids treatment, storage, and use or disposal shall not create a nuisance such as objectionable odors or flies.
7. The Discharger shall assure that haulers who transport biosolids off site for further treatment, storage, reuse, or disposal take all necessary measures to keep the biosolids contained.
8. If biosolids are stored for over two years from the time they are generated, the Discharger must ensure compliance with all the requirements for surface disposal under 40 CFR 503 Subpart C, or must submit a written request to EPA with the information in 503.20 (b), requesting permission for longer temporary storage.



## Biosolids Use and Disposal Requirements

9. Sewage sludge containing more than 50 mg/kg PCB's shall be disposed of in accordance with 40 CFR 761.
10. Any off-site biosolids treatment, storage, use or disposal site operated by the Discharger within Region 4 (Los Angeles Region of RWQCB) that is not subject to its own Waste Discharge Requirements shall have facilities adequate to divert surface runoff from the adjacent area, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials in the disposal site to escape from the site. Adequate protection is defined as protected from at least a 100-year storm and from the highest tidal stage that may occur.
11. Inspection and Entry: The Regional Board, USEPA or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Discharger, directly or through contractual arrangements with their biosolids management contractors, to:
  - a. enter upon all premises where biosolids are produced by the Discharger and all premises where Discharger biosolids are further treated, stored, used, or disposed, either by the Discharger or by another party to whom the Discharger transfers the biosolids for further treatment, storage, use, or disposal;
  - b. have access to and copy any records that must be kept under the conditions of this permit or of 40 CFR 503, by the Discharger or by another party to whom the Discharger transfers the biosolids for further treatment, storage, use, or disposal; and
  - c. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in the production of biosolids and further treatment, storage, use, or disposal by the Discharger or by another party to whom the Discharger transfers the biosolids for further treatment, storage, use, or disposal.
12. Monitoring shall be conducted as follows:
  - a. Biosolids shall be tested for the metals required in section 503.16 (for land application) or 503.26 (for surface disposal), using the methods in "Test Methods for Evaluating Solids Waste, Physical/Chemical Methods" (SW-846), as required in 503.8(b)(4), at the following minimum frequencies:

Volume (dry metric tons/year)	Frequency
0 - 290	once per year
290 - 1500	once per quarter
1500 - 15000	once per 60 days
> 15000	once per month

For accumulated, previously untested biosolids, the Discharger shall develop a



## Biosolids Use and Disposal Requirements

representative sampling plan, which addresses the number and location of sampling points, and collect representative samples.

Test results shall be expressed in mg pollutant per kg biosolids on a 100% dry weight basis.

Biosolids to be land applied shall be tested for Organic-N, ammonium-N, and nitrate-N at the frequencies required above.

- b. Prior to land application, the Discharger shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 503.32. Prior to disposal in a surface disposal site, the Discharger shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day.
  - c. For biosolids that are land applied or placed in a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 503.33 (b).
  - d. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with > 5 mgd influent flow shall sample biosolids for pollutants listed under Section 307 (a) of the Act (as required in the pretreatment section of the permit for POTW's with pretreatment programs.) Class 1 facilities and Federal Facilities with > 5 mgd influent flow shall test dioxins/dibenzofurans using a detection limit of < 1 pg/g during their next sampling period if they have not done so within the past 5 years and once per 5 years thereafter.
  - e. The biosolids shall be tested annually, or more frequently if necessary to determine hazardousness in accordance with California Law.
  - f. If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.
  - g. Biosolids placed in a municipal landfill shall be tested semi-annually by the Paint Filter Test (SW-846, Method 9095) to demonstrate that there are no free liquids.
13. The Discharger either directly or through contractual arrangements with their biosolids management contractors shall comply with the following 40 CFR 503 notification requirements:
- a. A reuse/disposal plan shall be submitted to EPA Region IX Coordinator and, in the absence of other state or regional reporting requirements, to the state permitting





## Biosolids Use and Disposal Requirements

- agency, prior to the use or disposal of any biosolids from this facility to a new or previously unreported site. The plan shall be submitted by the land applier of the biosolids and shall include, a description and a topographic map of the proposed site(s) for reuse or disposal, names and addresses of the applier(s) and site owner(s), and a list of any state or local permits which must be obtained. For land application sites, the plan shall include a description of the crops or vegetation to be grown, proposed nitrogen loadings to be used for the crops, and a groundwater monitoring plan if one exists.
- b. If the Discharger biosolids do not meet 503.13 Table 3 metals concentration limits, the Discharger must require their land applier to contact the state permitting authority to determine whether bulk biosolids subject to the cumulative pollutant loading rates in 503.12(b)(2) have been applied to the site since July 20, 1993, and, if so, the cumulative amount of pollutants applied to date, and background concentration, if known. The Discharger shall then notify EPA Region IX Coordinator of this information.
  - c. For biosolids that are land applied, the Discharger shall notify the applier in writing of the nitrogen content of the biosolids, and the applier's requirements under 503, including the requirements that the applier certify that the requirement to obtain information in Subpart A, and that the management practices, site restrictions, and any applicable vector attraction reduction requirements Subpart D have been met. The Discharger shall require the applier to certify at the end of 38 months following application of Class B biosolids that those harvesting restrictions in effect for up to 38 months have been met.
  - d. If bulk biosolids are shipped to another State or to Indian Lands, the Discharger must send written notice prior to the initial application of bulk biosolids to the permitting authorities in the receiving State or Indian Land (the EPA Regional Office for the area and the State/Indian authorities).
  - e. Notification of 503 non-compliance: The Discharger shall require appliers of their biosolids to notify EPA Region 9 and their state permitting agency of any non-compliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall require appliers of their biosolids to notify EPA Region 9 and their state permitting agency of the non-compliance in writing within 10 working days of becoming aware of the non-compliance.
14. The Discharger shall submit an annual biosolids report to EPA Region IX Biosolids Coordinator and the Los Angeles Regional Water Quality Control Board by February 19 of each year for the period covering the previous calendar year. The report shall include:
- a. The amount of biosolids generated that year, in dry metric tons, and the amount



## Biosolids Use and Disposal Requirements

accumulated from previous years.

- b. Results of all pollutant monitoring required in the Monitoring Section above.
  - c. Descriptions of pathogen reduction methods, and vector attraction reduction methods, as required in 503.17 and 503.27.
  - d. Results of any groundwater monitoring or certification by groundwater scientist that the placement of biosolids in a surface disposal site will not contaminate an aquifer.
  - e. Names and addresses of land appliers and surface disposal site operators, and volumes applied (dry metric tons).
  - f. Names and addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other reuse/disposal methods not covered in 14.c, above, and volumes delivered to each.
15. The Discharger shall require all parties contracted to manage their biosolids to submit an annual biosolids report to EPA Region IX Biosolids Coordinator by February 19 of each year for the period covering the previous calendar year. The report shall include:
- a. Names and addresses of land appliers and surface disposal site operators, name, location (latitude/longitude), and size (hectares) of site(s), volumes applied/disposed (dry metric tons) and for land application, biosolids loading rates (metric tons per hectare), nitrogen loading rates (kg/ha), dates of applications, crops grown, dates of seeding and harvesting and certifications that the requirement to obtain information in 503.12(e)(2), management practices in 503.14 and site restrictions in 503.32(b)(5) have been met.



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

**STANDARD PROVISIONS, GENERAL MONITORING AND  
REPORTING REQUIREMENTS**

**"ATTACHMENT N"**

**A. General Requirements**

1. Neither the disposal nor any handling of wastes shall cause pollution or nuisance.
2. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
3. This discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Clean Water Act, and amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.
4. Wastes discharged shall not contain visible color, oil or grease, and shall not cause the appearance of color, grease, oil or oily slick, or persistent foam in the receiving waters or on channel banks, walls, inverts or other structures.
5. Wastes discharged shall not increase the natural turbidity of the receiving waters at the time of discharge.
6. Wastes discharged shall not cause the formation of sludge deposits.
7. Wastes discharged shall not damage flood control structures or facilities.
8. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any spill of such materials shall be contained and removed immediately.
9. The pH of wastes discharged shall at all times be within the range 6.0 to 9.0.
10. The temperature of wastes discharged shall not exceed 100° F.
11. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

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12. Effluent limitations, national standards of performance and toxic and pretreatment effluent standards established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, 318 and 405 of the Federal Clean Water Act and amendments thereto are applicable to the discharge.

**B. General Provisions**

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
2. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
3. The discharger must comply with all of the terms, requirements, and conditions of this order. Any violation of this order constitutes a violation of the Clean Water Act, its regulations and the California Water Code, and is grounds for enforcement action, Order termination, Order revocation and reissuance, denial of an application for reissuance; or a combination thereof.
4. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.
5. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.
6. The Regional Board, EPA, and other authorized representatives shall be allowed:
  - a) Entry upon premises where a regulated facility is located or conducted, or where records are kept under conditions of this Order;
  - b) Access to copy any records that are kept under the conditions of this Order;
  - c) To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

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- (d) To photograph, sample, and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the Clean Water Act and the California Water Code.
7. If the discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the discharger must apply for and obtain a new Order.
8. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. If a toxic effluent standard or prohibition is established for toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.
9. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
- (a) Violation of any term or condition contained in this Order;
  - (b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
  - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
10. In the event the discharger is unable to comply with any of the conditions of this Order due to:
- (a) breakdown of waste treatment equipment;
  - (b) accidents caused by human error or negligence; or
  - (c) other causes such as acts of nature,

the discharger shall notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

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11. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
12. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
13. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control including sludge use and disposal facilities (and related appurtenances) that are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar system that are installed by a discharger only when necessary to achieve compliance with the conditions of this Order.
14. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
15. This Order does not convey any property rights of any sort, or any exclusive privilege.
16. The discharger shall furnish, within a reasonable time, any information the Regional Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
17. All applications, reports, or information submitted to the Regional Board shall be signed:
  - (a) In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
  - (b) In the case of a partnership, by a general partner;
  - (c) In the case of a sole proprietorship, by the proprietor;

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(d) In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

18. The discharger shall notify the Board of:

(a) new introduction into such works of pollutants from a source which could be a new source as defined in section 306 of the Federal Clean Water Act, or amendments thereto, if such source were discharging pollutants to the waters of the United States,

(b) new introductions of pollutants into such works from a source which would be subject to Section 301 of the Federal Clean Water Act, or amendments thereto, if substantial change in the volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time the waste discharge requirements were adopted.

Notice shall include a description of the quantity and quality of pollutants and the impact of such change on the quantity and quality of effluent from such publicly owned treatment works. A substantial change in volume is considered an increase of ten percent in the mean dry-weather flow rate. The discharger shall forward a copy of such notice directly to the Regional Administrator.

19. The discharger shall notify the Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge appropriate filing fee.

20. The discharger shall give advance notice to the Regional Board as soon as possible of any planned physical alterations or additions to the facility or of any planned changes in the facility or activity that may result in noncompliance with requirements.

21. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.

22. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Board as soon as they know or have reason to believe:

(a) that any activity has occurred or will occur that would result in the

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discharge of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels:"

- (i) One hundred micrograms per liter (100 µg/l);
- (ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
- (iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
- (iv) The level established by the Regional Board in accordance with 40 CFR 122.44(f).

- (b) that they have begun or expect to begin to use or manufacture intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.

23. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the discharger for bypass unless:

- (a) Bypass was unavoidable to prevent loss of life, personal injury or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.);
- (b) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and
- (c) The discharger submitted a notice at least ten days in advance of the need for a bypass to the Regional Board.

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The discharger may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable. The discharger shall submit notice of an unanticipated bypass as required in E-16.

24. A discharger that wishes to establish the affirmative defense of an upset in an action brought for non-compliance shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (a) an upset occurred and that the discharger can identify the cause(s) of the upset;
  - (b) the permitted facility was being properly operated by the time of the upset;
  - (c) the discharger submitted notice of the upset as required in E-16; and
  - (d) the discharger complied with any remedial measures required.

No determination made before an action for noncompliance, such as during administrative review of claims that non-compliance was caused by an upset, is final administrative action subject to judicial review.

In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof.

25. This Order is not transferable to any person except after notice to the Regional Board. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board. The Regional Board may require modification or revocation and reissuance of the Order to change the name of the discharger and incorporate such other requirements as may be necessary under the Clean Water Act.

C. Enforcement

1. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.



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Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

2. The Federal Clean Water Act (CWA) provides that any person who violates a permit condition or any requirement imposed in a pretreatment program implementing sections 301, 302, 306, 307, 308, 318 or 405 of the CWA is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing these sections of the CWA is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates permit conditions implementing these sections of the CWA is subject to a fine of not less than \$5,000, or more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or by both.
3. It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.
4. The Clean Water Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document submitted or required to be maintained under this Order, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this act, shall upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

D. Monitoring Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The discharger shall retain records of all monitoring information, including all calibration and maintenance monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge and application for this Order, for a period of at least five(5) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board or EPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge.

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3. Records of monitoring information shall include:
  - (a) The date, exact place, and time of sampling or measurements;
  - (b) The individual(s) who performed the sampling or measurements;
  - (c) The date(s) analyses were performed;
  - (d) The individual(s) who performed the analyses;
  - (e) The analytical techniques or methods used; and
  - (f) The results of such analyses.
4. All sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this Order.
5. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by an appropriate governmental regulatory agency.
6. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.
7. The discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in E-8 shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.

When requested by the Board or EPA, the discharger will participate in the NPDES discharge monitoring report QA performance study. The discharger must have a success rate equal to or greater than 80%.
8. Effluent samples shall be taken downstream of any addition to treatment works and prior to mixing with the receiving waters.
9. For parameters where both 30-day average and maximum limits are specified but where the monitoring frequency is less than four times a month, the following procedure shall apply:

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- (a) Initially, not later than the first week of the second month after the adoption of this permit, 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 30-day average limit has been demonstrated. Once compliance has been demonstrated, sampling and analyses shall revert to the frequency specified.
- (b) If future analyses of two successive samples yield results greater than 90% of the maximum limit for a parameter, the sampling frequency for that parameter shall be increased (within one week of receiving the laboratory result on the second sample) to a minimum of once weekly until at least four consecutive weekly samples have been obtained and compliance with the 30-day average limit has been demonstrated again and the discharger has set forth for the approval of the Executive Officer a program which ensures future compliance with the 30-day average limit.

E. Reporting Requirements

1. The discharger shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Programs as directed by the Executive Officer.
2. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernable. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.
3. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.
4. The discharger shall submit to the Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.
5. The discharger shall file a technical report with this Board not later than 30 days after receipt of this Order, relative to the operation and maintenance program for this waste disposal facility. The information to be contained in that report shall include as a minimum, the following:
  - (a) The name and address of the person or company responsible for operation

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and maintenance of the facility.

- (b) Type of maintenance (preventive or corrective).
- (c) Frequency of maintenance, if preventive.

If an operation and maintenance report has been supplied to the Board previously and there have been no changes, a second report need not be provided.

6. Monitoring results shall be reported at the intervals specified in the monitoring and Reporting Program.
  - (a) Monitoring results must be reported on a Discharge Monitoring Report (DMR).
  - (b) If the discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
  - (c) Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Order.
7. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this Order shall be submitted no later than 14 days following, each schedule date.
8. By March 1 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. 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 the waste discharge requirements.
9. The discharger shall include in the annual report, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiler water treatment and which are discharged.
10. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current EPA guideline procedures or as specified in this Monitoring Program".

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11. Each report shall contain the following completed declaration:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations.

Executed on the \_\_\_ day of \_\_\_\_\_, 19\_\_

at \_\_\_\_\_

\_\_\_\_\_(Signature)

\_\_\_\_\_(Title)"

12. If no flow occurred during the reporting period, the monitoring report shall so state.
13. For any analyses performed for which no procedure is specified in the EPA guidelines or in the monitoring and Reporting Program, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
14. This Board requires the discharger to file with the Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:
- (a) Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
  - (b) Evaluate the effectiveness of present facilities and procedures and state when they become operational.
  - (c) Describe facilities and procedures needed for effective preventive and contingency plans.

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- (d) Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

This Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events.

Such conditions may be incorporated as part of this Order, upon notice to the discharger.

- 15. In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:
  - (a) Types of wastes and quantity of each type;
  - (b) Name and address for each hauler of wastes (or method of transport if other than by hauling); and
  - (c) Location of the final point(s) of disposal for each type of waste.

If no wastes are transported offsite during the reporting period, a statement to that effect shall be submitted.

- 16. The discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information that must be reported within 24 hours under this paragraph:

- (a) Any unanticipated bypass that exceeds any effluent limitation in the Order.
- (b) Any upset that exceeds any effluent limitation in the Order.
- (c) Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours.

The Regional Board may waive the above-required written report on a case-by-case basis.



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17. Should the discharger discover that it failed to submit any relevant facts or that it submitted incorrect information in a report, it shall promptly submit the missing or correct information.
18. The discharger shall report all instances of non-compliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain all information listed in E-16.
19. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.
20. Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.
21. The discharger shall mail a copy of each monitoring report to:

TECHNICAL SUPPORT UNIT  
CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD - LOS ANGELES REGION  
101 Centre Plaza Drive  
Monterey Park, CA 91754-2156

A copy of such monitoring report for those discharges designated as a major discharge shall also be mailed to:

REGIONAL ADMINISTRATOR  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 9  
75 Hawthorne Street  
San Francisco, CA 94105

F. Publicly Owned Wastewater Treatment Plant Requirements  
(Does not apply to any other type or class of discharger)

1. Publicly owned treatment works (POTWs) must provide adequate notice to the Regional Board of:
  - (a) Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants.

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- (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the Order.

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

2. The discharger shall file a written report with the Board within 90 days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administration officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:
  - (a) Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.
  - (b) The discharger's best estimate of when the average daily dry weather flow rate will equal or exceed the design capacity of his facilities.
  - (c) The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.
3. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.
4. The discharger shall require any industrial user of the treatment works to comply with applicable service charges and toxic pretreatment standards promulgated in accordance with Sections 204(b), 307, and 308 of the Federal Clean Water Act or amendments thereto. The discharger shall require each individual user to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the Federal Clean Water Act or amendments thereto. The discharger shall forward a copy of such notice to the Board and the Regional Administrator.
5. Collected screening, biosolids (sludges), and other solids removed from liquid wastes shall be disposed of at a legal point of disposal and in accordance with the provisions of Section 405(d) of the Federal Clean Water Act and Division 7 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been

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prescribed by a Regional Water Quality Control Board and which is in full compliance therewith.

6. Supervisors and operators of publicly owned wastewater treatment plants shall possess a certificate of appropriate grade in accordance with regulations adopted by the State Water Resources Control Board.

The annual report required by E-8 shall address operator certification and provide a list of current operating personnel and their grade of certification. The report shall include the date of each facility's Operation and Maintenance Manual, the date the manual was last reviewed, and whether the manual is complete and valid for the current facilities. The report shall restate, for the record, the laboratories used by the discharger to monitor compliance with this order and permit and provide a summary of performance.

G. Definitions

1. "Biosolids" (sludge) means the solids, semi-liquid suspensions of solids, residues, screenings, grit, scum, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow/underflow in the solids handling parts of the wastewater treatment system.
2. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility whose operation is necessary to maintain compliance with the terms and conditions of this Order.
3. "Chlordane" means the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonchlor-alpha, nonchlor-gamma and chlordane.
4. "Composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

"Composite sample" means, for other than flow rate measurement,

- (a) A combination of at least eight individual portions obtained at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling;

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- (b) A combination of at least eight individual portions of equal volume obtained over a 24-hour period. The time interval will vary such that the volume of wastewater discharged between samplings remains constant.

The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

5. "Daily discharge" means:
- (a) For flow rate measurements, the average flow rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
- (b) For pollutant measurements, the concentration or mass emission rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
6. The "daily discharge rate" shall be obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34 \sum_{i=1}^N (Q_i)(C_i)}{N}$$

in which N is the number of samples analyzed in any calendar day, Q<sub>i</sub> and C<sub>i</sub> are the rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C<sub>i</sub> is the concentration measured in the composite sample and Q<sub>i</sub> is the average flow rate occurring during the period over which samples are composited.

7. "Daily maximum" limit means the maximum acceptable "daily discharge" for pollutant measurements. Unless otherwise specified, the results to be compared to the "daily maximum" limit are based on composite samples."
8. "DDT" means the sum of the 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD. DDT is dichloro diphenyl trichloroethane.
9. "Degrade" means to impair. Determination of whether degradation has occurred and of the extent to which it has occurred shall be made by analysis of species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species.
10. "Dichlorobenzenes" mean the sum of 1,2- and 1,3-dichlorobenzene.

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11. "Duly authorized representative" is one whose:
  - (a) Authorization is made in writing by a principal executive officer or ranking elected official;
  - (b) Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
  - (c) Written authorization is submitted to the Regional Board and EPA Region 9. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to the Regional Board and EPA Region 9 prior to or together with any reports, information, or applications to be signed by an authorized representative.
12. "Grab sample" is defined as any individual sample collected in a short period of time not exceeding 15 minutes. "Grab samples" shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with "daily maximum" limits and the "instantaneous maximum" limits.
13. "Halomethanes" means the sum of bromoform, bromomethane (methylbromide), chloromethane (methylchloride), chlorodibromomethane and dichlorobromomethane.
14. "Hazardous substance" means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act.
15. "HCH" shall mean the sum of the alpha, beta, gamma (Lindane), and delta isomers of hexachlorocyclohexane.
16. "Heavy metals" are for purposes of this Order, arsenic, cadmium, chromium, copper, lead, mercury, silver, nickel, and zinc.
17. "Heptachlor" means the sum of heptachlor and heptachlor epoxide.
18. "Indirect discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.

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19. "Initial dilution" is the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

Numerically, initial dilution is expressed as the ratio of the volume of discharged effluent plus ambient water entrained during the process of initial dilution to the volume of discharged effluent.

20. "Instantaneous maximum" concentration is defined as the maximum value measured from any single "grab sample."

21. "Interference" discharge which, alone or in conjunction with discharges from other sources, inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use, or disposal and is a cause of a violation of the POTW's NPDES permit or prevents lawful sludge use or disposal.

22. "Kelp beds" are, for purposes of the bacteriological standards of this order and permit, significant aggregations of marine algae of the genus Macrocystis. Kelp beds include the total foliage canopy of Macrocystis plants throughout the water column. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelpbeds for purposes of bacteriological standards.

23. Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

24. "Log mean" is the geometric mean. Used for determining compliance with bacteriological standards, it is calculated with the following equation:

$$\text{Log Mean} = (C_1 \times C_2 \times \dots \times C_N)^{1/N}$$

in which 'N' is the number of days samples that were analyzed during the period and 'C' is the concentration of bacteria (MPN/100mL) found on each day of sampling.

25. "Mass emission rate" is obtained from the following calculation for any calendar day:



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$$\text{Mass emission rate (lb/day)} = \frac{8.435}{N} \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.785}{N} \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Q<sub>i</sub>' and 'C<sub>i</sub>' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' grab samples which may be taken in any calendar day. If a composite sample is taken, 'C<sub>i</sub>' is the concentration measured in the composite sample and 'Q<sub>i</sub>' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste streams as follows:

$$\text{Daily concentration} = \frac{1}{Q_t} \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of component waste streams. 'Q<sub>i</sub>' and 'C<sub>i</sub>' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Q<sub>t</sub>' is the total flow rate of the combined waste streams.

26. "Maximum allowable mass emission rate, "whether for a 24-hour, 7-day, 30-day (monthly), or 6-month period, is a limitation expressed as a daily rate determined with the formulas in paragraph A.20., above, using the effluent concentration limit specified in this order and permit for the period and the specified allowable flow.
27. MDL (Method Detection Limit) is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero, as defined in 40 CFR 136 Appendix B.
28. "Median" of an ordered set of values is the value which the values above and below is an equal number of values, or which is the arithmetic mean of the two middle values, if there is no one middle value.
29. "Monthly average" is the arithmetic mean of daily concentrations, or of daily "mass emission rates", over the specified monthly period:

N

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$$\text{Average} = \frac{1}{N} \sum_{i=1} X_i$$

in which 'N' is the number of days samples were analyzed during the period and 'X<sub>i</sub>' is either the constituent concentration (mg/L) or mass emission rate (kg/day or lb/day) for each sampled day.

30. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.
31. "PAHs" (polynuclear aromatic hydrocarbons) 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, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.
32. "Pass through" defines as the discharge through the POTW to navigable waters which, alone or in conjunction with discharges from other sources, is a cause of a violation of POTW's NPDES permit.
33. "PCBs" (polychlorinated biphenyls) 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.
34. "PQL" (Practical Quantitation Level) is the lowest concentration of a substance which can be consistently determined within +/-20% of the true concentration by 75% of the labs tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL\* for carcinogens is the MDL\*x 5, and for noncarcinogens is the MDL\*x 10.
35. "Priority pollutants" are those constituents referred to in 40 CFR §401.15 and listed in the EPA NPDES Application Form 2C, pp. V-3 thru V-9.
36. "Removal efficiency" is the ratio of pollutants removed by the treatment facilities to pollutants entering the treatment facilities. Removal efficiencies of a treatment plant shall be determined using "30-day averages" of pollutant concentrations ('C' in mg/L) of influent and effluent samples collected at about the same time and using the following equation (or its equivalent):
- Removal Efficiency (%) =  $100 \times [1 - (C_{\text{Effluent}}/C_{\text{Influent}})]$
- When preferred, the discharger may substitute mass loadings and mass emissions for the concentrations.
37. "Shellfish" are organisms identified by the California Department of Health Services

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as shellfish for public health purposes (i.e., mussels, clams, and oysters).

38. "Sludge" see biosolids.
39. "6-month median" means a moving "median" of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.
40. "7-day" and "30-day average" shall be the arithmetic average of the values of daily discharge calculated using the results of analyses of all samples collected during any 7 and 30 consecutive calendar day periods, respectively.
41. TCDD equivalents mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below:

<u>Isomer Group</u>	<u>Toxicity Equivalence Factor</u>
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
2,3,7,8-hexa CDFs	0.1
2,3,7,8-hepta CDFs	0.01
octa CDF	0.001

42. "Toxic pollutant" means any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act or under 40 CFR §122, Appendix D. Violation of maximum daily discharge limitations are subject to the 24-hour reporting requirement (paragraph E.4.).
43. "Toxicity" means:

Acute toxicity: measures effects of relatively short-term exposures on a selected organism, with mortality the generally designated endpoint.

Chronic toxicity: measures effects of exposure on selected organisms, with either

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mortality or various sublethal effects generally the designated endpoints. The chronic tests are usually longer-term than acute tests or test a very critical life stage of the organism.

44. "Toxicity concentration" shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

- a. The acute toxicity concentration ( $TC_a$ ) expressed in toxicity units ( $tu_a$ ) is calculated as:

$$Tc_a (tu_a) = 100 / [96\text{-hr } LC_{50}]$$

Where:  $LC_{50}$  is the Lethal Concentration (the percent waste giving 50 percent survival of test organisms)

The  $LC_{50}$  shall be determined by static or continuous flow bioassay techniques specified in "Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms" (March 1985, EPA/600/4-85/013). Submission of bioassay results should include the information noted on pp. 45-49 of the Methods. The fathead minnow (*Pimephales promelas*) shall be used as the test species. In addition, the Regional Board and/or EPA may specify test methods which are more sensitive than those specified above. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the  $LC_{50}$  may be determined after the test samples are adjusted to remove the influence of those substances: subject to Executive Officer notification and authorization.

When it is not possible to measure the 96-hour  $LC_{50}$  due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$Tc_a (tu_a) = \text{Log} (100 - S) / 1.7$$

where: S = percent survival in 100 percent waste. If S > 99,  $Tc_a$  shall be reported as zero.

- b. The chronic toxicity concentration ( $TC_c$ ) expressed in chronic toxicity units ( $tu_c$ ) is calculated as:

$$TC_c (tu_c) = 100/\text{NOEC}$$

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where: NOEC is the No Observable Effect Concentration which is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism as determined by the result of a critical life stage toxicity test conducted according to the protocols listed in Appendix II of the California Ocean Plan adopted on March 22, 1990.

NOEC shall be determined based on toxicity tests having chronic endpoints.

45. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations in the order and permit because of factors beyond the reasonable control of the discharger. It does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation, or those problems the discharger should have foreseen.
46. "Waste", "waste discharge", "discharge of waste", and "discharge" are used interchangeably in this order and permit. The requirements of this order and permit are applicable to the entire volume of water, and the material therein, which is disposed of to ocean waters.
47. Water Reclamation: The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.
48. "Weekly average" is the arithmetic mean of daily concentrations, or of daily mass emission rates, over the specified weekly period:

$$\text{Average} = \frac{1}{N} \sum_{i=1}^N X_i$$

in which "N" is the number of days samples were analyzed during the period and " $X_i$ " is either the constituent concentration (mg/L) or mass emission rate (kg/day or lb/day) for each sampled day.

49. "Zone of initial dilution" (ZID) means, for purposes of designating monitoring stations, the region within a horizontal distance equal to a specified water depth (usually depth of outfall or average depth of diffuser) from any point of the diffuser or end of the outfall and the water column above and below that region, including the underlying seabed.

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



Attachment P  
Pretreatment Reporting Requirements

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





**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(JOINT WATER POLLUTION CONTROL PLANT)**

**MONITORING AND REPORTING PROGRAM NO. 1758**

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## ATTACHMENT T

### CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION  
MONITORING AND REPORTING PROGRAM NO. 1758  
FOR  
County Sanitation Districts of Los Angeles County  
(Joint Water Pollution Control Plant)  
(CA0053813)

#### I. REPORTING REQUIREMENTS

- A. The discharger shall implement this monitoring program on the effective date of this Order. Monitoring reports shall be submitted to the Regional Board, Attention: Data and Information Management Unit
- B. Monitoring reports shall be submitted according to the following schedule:
1. Effluent/influent monitoring reports shall be submitted monthly by the fifteenth day of the second month following the end of each monthly reporting period.
  2. An annual report discussing the previous year's effluent/influent monitoring data shall be submitted by the first of April of the year following data collection. This report shall include graphical and tabular summaries of the data.
  3. Ocean Water Quality Monitoring (shoreline, nearshore and offshore components) reports shall be submitted by the fifteenth day of the second month following the end of each monthly reporting period.
  4. An annual report discussing the previous year's Ocean Bottom Monitoring and Ocean Water Quality Monitoring data (benthic, sediment, trawling and bioaccumulation components) shall be submitted by the first of July of the year following data collection.

This report shall include an in-depth discussion of the results from the Ocean Water Quality Monitoring (shoreline, nearshore and offshore sampling) and Ocean Bottom Monitoring (benthic and sediment sampling, trawling and priority pollutant analyses) programs conducted during the previous year. Temporal and spatial trends in the data shall be analyzed, with particular reference to comparisons between stations with respect to distance from the outfall and comparisons to data collected during previous years. Appropriate statistical tests and indices, subject to approval of the Executive Officer, shall be calculated and included in the annual report.

- C. Monthly and annual monitoring reports shall include the following information, if appropriate, at the minimum:
1. A description of climatic and receiving water characteristics at the time of sampling (weather observations, unusual or abnormal amounts of floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling or measurements, tidal stage and height, etc.).
  2. The date, exact place and description of sampling stations, including differences unique to each station (e.g., station location, sediment grain size, distribution of bottom sediments, rocks, shell litter, calcareous worm tubes, etc.).
  3. A list of individuals participating in field collection of samples or data and description of the sample collection and preservation procedures used in the various surveys.
  4. A description of the specific method used for each laboratory analysis, the date(s) the analyses were performed and the individuals participating in these analyses.

## II. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to:

Determine compliance with NPDES permit conditions.

Identify operational problems and improve plant performance.

Provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.

A sampling station shall be established for each point of discharge and shall be located where representative samples of the effluent can be obtained (after receiving all treatment, including chlorination). In the event that waste streams from different sources are combined for treatment or discharge, representative sampling stations shall be established to insure that the quantity of each pollutant or pollutant property attributable to each waste source regulated by effluent limitations can be determined. Effluent samples may be obtained at a single station provided that station is representative of the effluent quality at all discharge points. Residual chlorine and bacteria samples shall be collected at the manifold station. Any request for changes in sampling station locations shall be submitted in writing to this Board and subject to approval by the Executive Officer.

The analysis shall specify the USEPA analytical method used and its Method Detection Limit (MDL). For the purpose of reporting compliance with effluent limitations, performance goals, receiving water limitations, analytical data shall be reported with an actual numerical value or "nondetected (ND)" with the MDL indicated for the analytical method used. The maximum allowed MDLs are those published by USEPA (MDLs for priority pollutants are listed in Attachment 2). CSDLAC shall not use a MDL higher than published by the USEPA unless the CSDLAC can demonstrate that a practical detection limit is not attainable and obtain approval for a higher MDL from the Executive Officer.

Weekly effluent analyses shall be performed on different weekdays during each month. Quarterly effluent analyses shall be performed during the months of February, May, August and November. Semiannual effluent analyses shall be performed during the months of May and November. Annual effluent analysis shall be performed during the month of May. Results of quarterly, semiannual and annual analyses shall be reported in the appropriate monthly monitoring report.

A. The monitoring program for Discharge Serial Nos. 001, 002, 003, 004, and 005 through 014, is as follows (for footnotes, see pages T-16 and T-17):

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u> <sup>[1][17]</sup>	<u>Minimum Frequency</u> <sup>[2]</sup> <u>of Analysis</u>
Total waste flow <sup>3</sup>	mgd	continuous	---
Total chlorine residual <sup>[4]</sup>	mg/l	grab	daily
Settleable solids	ml/l	grab	once every 8 hrs
Temperature	°F	grab	daily
pH	pH units	grab	daily
Oil and grease	mg/l	grab <sup>[5]</sup>	daily
BOD <sub>5</sub> 20°C	mg/l	24-hr composite	daily
Suspended solids	mg/l	24-hr composite	daily
Turbidity	NTU	24-hr composite	daily
Total coliform <sup>[4]</sup>	#/100 ml	grab	daily

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u> <sup>[1][17]</sup>	<u>Minimum Frequency</u> <sup>[2]</sup> <u>of Analysis</u>
Enterococcus <sup>[4]</sup>	CFU	grab	daily
Fecal coliform <sup>[4]</sup>	#/100 ml	grab	5 times/month
COD	mg/l	24-hr composite	daily
TOC	mg/l	24-hr composite	weekly
Arsenic	µg/l	24-hr composite	monthly
Cadmium	µg/l	24-hr composite	monthly
Chromium (hexavalent) <sup>[6]</sup>	µg/l	24-hr composite	monthly
Copper	µg/l	24-hr composite	monthly
Lead	µg/l	24-hr composite	monthly
Mercury	µg/l	24-hr composite	monthly
Nickel	µg/l	24-hr composite	monthly
Selenium	µg/l	24-hr composite	monthly
Silver	µg/l	24-hr composite	monthly
Zinc	µg/l	24-hr composite	monthly
Cyanide	µg/l	24-hr composite	monthly
Ammonia nitrogen	mg/l	24-hr composite	monthly
Organic nitrogen	mg/l	24-hr composite	monthly
Nitrate nitrogen	mg/l	24-hr composite	monthly
Nitrite nitrogen	mg/l	24-hr composite	monthly



<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u> <sup>[1][17]</sup>	<u>Minimum Frequency</u> <sup>[2]</sup> <u>of Analysis</u>
Total phosphorus (as P)	mg/l	24-hr composite	monthly
Phenolic compounds (non-chlorinated)	µg/l	24-hr composite	monthly
Phenolic compounds (chlorinated)	µg/l	24-hr composite	monthly
Radioactivity <sup>[7]</sup>	pCi/ml	24-hr composite	monthly
Endosulfan	ng/l	24-hr composite	quarterly
Endrin	ng/l	24-hr composite	quarterly
HCH <sup>[8]</sup>	ng/l	24-hr composite	quarterly
Acrolein	µg/l	grab	quarterly
Antimony	mg/l	24-hr composite	quarterly
Bis(2-chloro- ethoxy) methane	µg/l	24-hr composite	quarterly
Bis(2-chloro- isopropyl) ether	mg/l	24-hr composite	quarterly
Chlorobenzene	µg/l	grab	quarterly
Chromium (III)	mg/l	24-hr composite	quarterly
di-n-butyl phthalate	mg/l	24-hr composite	quarterly
dichlorobenzene <sup>[9]</sup>	mg/l	24-hr composite	quarterly
1,1-dichloro- ethylene	mg/l	grab	quarterly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u> <sup>[1][17]</sup>	<u>Minimum Frequency</u> <sup>[2]</sup> <u>of Analysis</u>
diethyl phthalate	mg/l	24-hr composite	quarterly
dimethyl phthalate	mg/l	24-hr composite	quarterly
4,6-dinitro-2-methylphenol	µg/l	24-hr composite	quarterly
2,4-dinitrophenol	µg/l	24-hr composite	quarterly
ethylbenzene	mg/l	grab	quarterly
fluoranthene	µg/l	24-hr composite	quarterly
hexachlorocyclopentadiene	µg/l	24-hr composite	quarterly
isophorone	mg/l	24-hr composite	quarterly
nitrobenzene	µg/l	24-hr composite	quarterly
thallium	µg/l	24-hr composite	quarterly
toluene	mg/l	grab	quarterly
1,1,2,2-tetrachloroethane	mg/l	grab	quarterly
tributyltin	ng/l	24-hr composite	quarterly
1,1,1-trichloroethane	mg/l	grab	quarterly
1,1,2-trichloroethane	mg/l	grab	quarterly
acrylonitrile	µg/l	grab	quarterly
aldrin	ng/l	24-hr composite	quarterly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u> <sup>[1][17]</sup>	<u>Minimum Frequency</u> <sup>[2]</sup> <u>of Analysis</u>
benzene	µg/l	grab	quarterly
benzidine	ng/l	24-hr composite	quarterly
beryllium	ng/l	24-hr composite	quarterly
bis(2-chloro-ethyl) ether	µg/l	24-hr composite	quarterly
bis(2-ethylhexyl) phthalate	µg/l	24-hr composite	quarterly
carbon tetra-chloride	µg/l	grab	quarterly
chlordane <sup>[10]</sup>	ng/l	24-hr composite	quarterly
chloroform	mg/l	grab	quarterly
DDT <sup>[11]</sup>	ng/l	24-hr composite	quarterly
1,4-dichloro-benzene	µg/l	grab	quarterly
3,3'-dichloro-benzidine	ng/l	24-hr composite	quarterly
1,2-dichloroethane	mg/l	grab	quarterly
dichloromethane	mg/l	grab	quarterly
1,3-dichloro-propene	µg/l	grab	quarterly
dieldrin	ng/l	24-hr composite	quarterly
2,4-dinitrotoluene	µg/l	24-hr composite	quarterly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u> <sup>[1][17]</sup>	<u>Minimum Frequency</u> <sup>[2]</sup> <u>of Analysis</u>
1,2-diphenyl- hydrazine	µg/l	24-hr composite	quarterly
halomethanes <sup>[12]</sup>	mg/l	grab	quarterly
heptachlor <sup>[13]</sup>	ng/l	24-hr composite	quarterly
hexachlorobenzene	ng/l	24-hr composite	quarterly
hexachloro- butadiene	µg/l	24-hr composite	quarterly
hexachlorethane	µg/l	24-hr composite	quarterly
N-nitrosodimethyl- amine	µg/l	24-hr composite	quarterly
N-nitrosodiphenyl- amine	µg/l	24-hr composite	quarterly
PAHs <sup>[14]</sup>	ng/l	24-hr composite	quarterly
PCBs <sup>[15]</sup>	ng/l	24-hr composite	quarterly
TCDD equivalents <sup>[16]</sup>	pg/l	24-hr composite	quarterly
tetrachloro- ethylene	µg/l	grab	quarterly
toxaphene	ng/l	24-hr composite	quarterly
trichloroethylene	µg/l	grab	quarterly
2,4,6-trichloro- phenol	µg/l	24-hr composite	quarterly
vinyl chloride	µg/l	grab	quarterly

## B. Demonstration of Compliance with 30-Day Average Limitations

The analytical result of a single sample obtained during the month which does not exceed the 30-day average limit for that constituent is sufficient to demonstrate compliance with the 30-day average limit for that month.

If the analytical result of a single sample obtained during the month exceeds the 30-day average limit for any constituent, the discharger shall collect five additional samples at approximately equal intervals during the month and on different days of the week. All six analytical results shall be reported in the monitoring report for that month.

If the numerical average of the analytical results of these six samples does not exceed the 30-day average limit for that constituent, compliance with the 30-day average limit has been demonstrated for that month.

If the numerical average of the analytical results of these six samples exceeds the 30-day average limit for that constituent, compliance has not been demonstrated. However, in that event, the discharger may at its option apply an appropriate statistical method to demonstrate that the exceedance is not a violation of the 30-day average limit.

In the event of noncompliance with a 30-day average effluent limitation, the sampling frequency for that constituent shall be increased to a minimum of six times per month and shall continue at this level until compliance with the 30-day average effluent limitation has been demonstrated.

## C. Effluent Toxicity Testing

### 1. Acute Toxicity Testing

Testing shall be conducted monthly on a grab sample by the method specified in "Guidelines for Performing Static Acute Toxicity Fish Bioassays in Municipal and Industrial Wastewaters" - July 1976 (California State Water Resources Control Board and California Department of Fish and Game). There should not be removal of free chlorine from samples and shall be retained for four hours before initiation of analysis. Toxicity tests shall be conducted with the fathead minnow (*Pimephales promelas*) unless otherwise directed by the Executive Officer. Submission of bioassay results shall include the information noted on pages 30 through 34 of the "Guidelines" where appropriate.

### 2. Chronic Toxicity Testing

Testing shall be conducted monthly on a composite sample. To mimic the actual effluent conditions at the outfall, no free chlorine shall be removed from the samples and the samples retained for four hours before the initiation of the analysis. A screening process shall be

conducted (or equivalent data submitted for approval) annually using a minimum of three test species with approved test protocols listed in the California Ocean Plan (State Water Resources Control Board, 1990) to determine the most sensitive test organism for chronic toxicity testing (other test species may be added to the Ocean Plan list when approved by the State Board). The screening process shall be conducted to account for potential variability of the effluent. If possible, the test species used during the screening process should include a fish, an invertebrate and an aquatic plant.

Dilution and control water 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 bioassay test and reported with the test results.

Chronic toxicity ( $TC_c$ ) shall be expressed and reported as toxic units ( $tu_c$ ), where:

$$TC_c (tu_c) = 100/NOEL$$

and the No Observed Effect Level (NOEL) is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Appendix II of the Ocean Plan.

### 3. Toxicity Reduction Requirement

If the effluent exceeds an acute or chronic toxicity limitations for three consecutive toxicity tests, a toxicity reduction evaluation (TRE) shall be conducted by the discharger. The TRE shall include all reasonable steps to identify the source(s) of toxicity. Once the source(s) of toxicity is(are) identified, the discharger shall take all reasonable steps necessary to reduce toxicity to the required level.

## III. INFLUENT MONITORING REQUIREMENTS

### A. Influent monitoring is required to:

Determine compliance with NPDES permit conditions and water quality standards.

Assess treatment plant performance.

Assess the effectiveness of the pretreatment program.

Sampling stations shall be established at each point of inflow to the sewage treatment plants 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 (as appropriate) shall be



reported with the analytical values determined.

B. The influent monitoring program is as follows (for footnotes, see pages T-16 and T-17):

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
BOD <sub>5</sub> 20°C	mg/l	24-hr composite	daily
Suspended solids	mg/l	24-hr composite	daily
COD	mg/l	24-hr composite	daily
Oil and grease	mg/l	grab	monthly
Arsenic	µg/l	24-hr composite	monthly
Cadmium	µg/l	24-hr composite	monthly
Chromium (hexavalent) <sup>[6]</sup>	µg/l	24-hr composite	monthly
Copper	µg/l	24-hr composite	monthly
Lead	µg/l	24-hr composite	monthly
Mercury	µg/l	24-hr composite	monthly
Nickel	µg/l	24-hr composite	monthly
Selenium	µg/l	24-hr composite	monthly
Silver	µg/l	24-hr composite	monthly
Zinc	µg/l	24-hr composite	monthly
Cyanide	µg/l	24-hr composite	monthly
Ammonia nitrogen	mg/l	24-hr composite	monthly
Organic nitrogen	mg/l	24-hr composite	monthly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Nitrate nitrogen	mg/l	24-hr composite	monthly
Nitrite nitrogen	mg/l	24-hr composite	monthly
Total phosphorus (as P)	mg/l	24-hr composite	monthly
Phenolic compounds (non-chlorinated)	µg/l	24-hr composite	monthly
Phenolic compounds (chlorinated)	µg/l	24-hr composite	monthly
Radioactivity <sup>[7]</sup>	pCi/ml	24-hr composite	monthly
Endosulfan	ng/l	grab	quarterly
Endrin	ng/l	24-hr composite	quarterly
HCH <sup>[8]</sup>	ng/l	24-hr composite	quarterly
Acrolein	µg/l	grab	quarterly
Antimony	mg/l	24-hr composite	quarterly
Bis(2-chloro- ethoxy) methane	µg/l	24-hr composite	quarterly
Bis(2-chloro- isopropyl) ether	mg/l	24-hr composite	quarterly
Chlorobenzene	µg/l	grab	quarterly
Chromium (III)	mg/l	24-hr composite	quarterly
di-n-butyl phthalate	mg/l	24-hr composite	quarterly
dichlorobenzene <sup>[9]</sup>	mg/l	24-hr composite	quarterly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
1,1-dichloro-ethylene	mg/l	grab	quarterly
diethyl phthalate	mg/l	24-hr composite	quarterly
dimethyl phthalate	mg/l	24-hr composite	quarterly
4,6-dinitro-2-methylphenol	µg/l	24-hr composite	quarterly
2,4-dinitrophenol	µg/l	24-hr composite	quarterly
ethylbenzene	mg/l	grab	quarterly
fluoranthene	µg/l	24-hr composite	quarterly
hexachlorocyclopentadiene	µg/l	24-hr composite	quarterly
isophorone	mg/l	24-hr composite	quarterly
nitrobenzene	µg/l	24-hr composite	quarterly
thallium	µg/l	24-hr composite	quarterly
toluene	mg/l	grab	quarterly
1,1,2,2-tetrachloroethane	mg/l	grab	quarterly
tributyltin	ng/l	24-hr composite	quarterly <sup>8</sup>
1,1,1-trichloroethane	mg/l	grab	quarterly
1,1,2-trichloroethane	mg/l	grab	quarterly
acrylonitrile	µg/l	grab	quarterly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
aldrin	ng/l	24-hr composite	quarterly
benzene	µg/l	grab	quarterly
benzidine	ng/l	24-hr composite	quarterly
beryllium	ng/l	24-hr composite	quarterly
bis(2-chloro-ethyl) ether	µg/l	24-hr composite	quarterly
bis(2-ethylhexyl) phthalate	µg/l	24-hr composite	quarterly
carbon tetra-chloride	µg/l	grab	quarterly
chlordane <sup>(10)</sup>	ng/l	24-hr composite	quarterly
chloroform	mg/l	grab	quarterly
DDT <sup>(11)</sup>	ng/l	24-hr composite	quarterly
1,4-dichloro-benzene	µg/l	grab	quarterly
3,3'-dichloro-benzidine	ng/l	24-hr composite	quarterly
1,2-dichloroethane	mg/l	grab	quarterly
dichloromethane	mg/l	grab	quarterly
1,3-dichloro-propene	µg/l	grab	quarterly
dieldrin	ng/l	24-hr composite	quarterly
2,4-dinitrotoluene	µg/l	24-hr composite	quarterly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
1,2-diphenyl- hydrazine	µg/l	24-hr composite	quarterly
halomethanes <sup>[12]</sup>	mg/l	grab	quarterly
heptachlor <sup>[13]</sup>	ng/l	24-hr composite	quarterly
hexachlorobenzene	ng/l	24-hr composite	quarterly
hexachloro- butadiene	µg/l	24-hr composite	quarterly
hexachlorethane	µg/l	24-hr composite	quarterly
N-nitrosodimethyl- amine	µg/l	24-hr composite	quarterly
N-nitrosodiphenyl- amine	µg/l	24-hr composite	quarterly
PAHs <sup>[14]</sup>	ng/l	24-hr composite	quarterly
PCBs <sup>[15]</sup>	ng/l	24-hr composite	quarterly
TCDD equivalents <sup>[16]</sup>	pg/l	24-hr composite	quarterly
tetrachloro- ethylene	µg/l	grab	quarterly
toxaphene	ng/l	24-hr composite	quarterly
trichloroethylene	µg/l	grab	quarterly
2,4,6-trichloro- phenol	µg/l	24-hr composite	quarterly
vinyl chloride	µg/l	grab	quarterly

Footnotes to Effluent and Influent Monitoring Programs

- [1] For 24-hour composite samples, if the duration of the discharge is less than 24 hours but greater than 8 hours, at least eight flow-weighted samples shall be obtained during the discharge period and composited. For discharge durations of less than eight hours, individual "grab samples" may be substituted.
- [2] For short term emergency discharge through Discharge Serial Nos. 003 through 015, the minimum frequency of analysis shall be once per discharge.
- [3] In addition to the continuous monitoring requirement, the following shall be reported: total daily flow, peak daily flow.
- [4] Samples shall be obtained at the manifold sampling station at Whites Point. Any proposed changes in the location of the sampling points must be approved by the Executive Officer, and the proposed changes shall not be made until such approval has been granted.
- [5] Grease and oil monitoring in the influent and effluent shall consist of one grab sample taken over a 24-hour period.
- [6] Discharger may, at its option, meet this limitation as a total chromium limitation.
- [7] Radioactivity determinations of gross and net beta activity, in picocuries per liter, shall be made within 48 hours following preparation of composite samples. The overall efficiency of the counting system, size of sample and counting time shall be such that radioactivity can be determined to a sensitivity of ten picocuries per liter with a 95% confidence limit not to exceed 50 percent.
- [8] Sum of alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.
- [9] Sum of 1,2- and 1,3-dichlorobenzene.
- [10] Sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma and oxychlordane.
- [11] Sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.
- [12] Sum of bromoform, bromomethane (methylbromide), chloromethane (methyl chloride), chlorodibromomethane and dichlorobromo-methane.
- [13] Sum of heptachlor and heptachlor epoxide
- [14] Sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

- [15] Sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1242, Aroclor-1248, and Aroclor-1254.
- [16] Sum of the concentration of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below:

<u>Isomer Group</u>	<u>Toxicity Equivalence Factor</u>
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
2,3,7,8-hexa CDFs	0.1
2,3,7,8-hepta CDFs	0.01
octa CDF	0.001

- [17] Volatile priority pollutant monitoring in the influent and effluent shall consist of three grab samples taken over a 24-hour period at approximately equal intervals. One sample shall be taken during peak flow. Each sample shall be preserved separately and combined with the other samples in proportion to flow to produce a single composite sample for analysis.

#### IV. BIOSOLIDS MONITORING

A monthly report shall be provided noting the volume of screenings, biosolids, grit and other solids removed from the wastewater. The monthly report shall also provide the volume of biosolids disposed of at landfills, through composting, or by any other method.

A representative sample of the biosolids shall be analyzed at least semi-annually for all priority pollutants, excluding asbestos. Analytical data shall be reported with an actual numerical value or "nondetected (ND)" with the MDL indicated for the analytical method used. The maximum allowable MDLs are those published by the USEPA (MDLs for priority pollutants are listed in Attachment 2). CSDLAC shall not a MDL higher than that published by the USEPA unless the CSDLAC can demonstrate that a practical detection limit is not attainable and obtains approval for a higher MDL from the USEPA. Biosolids sampling for priority pollutants shall be scheduled to be concurrent with influent and effluent priority pollutant testing. The biosolids analyzed shall be a composite sample representing a minimum of twelve discrete samples taken at equal time intervals over a 24-hour period.



V. RECEIVING WATER MONITORING

A. Regional Monitoring Program

1. Pursuant to the Code of Federal Regulations [40 CFR §122.41(j) and §122.48(b)], the monitoring program for a discharger receiving a National Pollutant Discharge Elimination System (NPDES) permit must determine compliance with NPDES permit terms and conditions, and demonstrate that State water quality standards are met.
2. Compliance monitoring focuses on the effects of a specific 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. The scale of existing compliance monitoring programs does not match the spatial and, to some extent, temporal boundaries of the important physical and biological processes in the ocean. In addition, the areal coverage provided by compliance monitoring programs is less than ten percent of the nearshore ocean environment. Better technical information is needed about status and trends in ocean waters to guide management and regulatory decisions, to verify the effectiveness of existing programs and to shape policy on marine environmental protection.
3. The Los Angeles Regional Water Quality Control Board (Regional Board) and the United States Environmental Protection Agency (EPA) are working with other groups to develop and implement a comprehensive monitoring program for ocean waters of the Los Angeles region. The goal is to establish a regional program to address public health concerns, monitor trends in natural resources, assess regional impacts from all contaminant sources, and ensure protection of beneficial uses. The major objectives of the regional monitoring program will be to provide the information required to determine how safe it is to swim in the ocean, how safe it is to eat seafood from the ocean, and whether the marine ecosystem is being protected.
4. The Santa Monica Bay Restoration Project has developed a framework for a comprehensive monitoring program in Santa Monica Bay. The Regional Board and EPA participated in this effort and support measures to implement the recommended monitoring elements of the comprehensive program. The goal is to implement the measures discussed below during 1997 and 1998.
  - a. A regional monitoring program for bacteriological sampling in Santa Monica Bay was designed and implemented in 1995. This program focuses on monitoring of shoreline and inshore areas with high recreational use (e.g., beaches, kelp

beds, surfing areas) and potential sources of contamination (e.g., storm drains). The data from this program will be used to provide warnings to the public when it is unsafe to swim at certain locations. The data also will be used to identify areas with recurring contamination problems that should be addressed and to track improvements resulting from management actions or other causes to reduce bacterial contamination.

b. A regional monitoring program to assess health risks associated with seafood consumption has been designed and is scheduled for implementation during the summer/fall of 1997. This program will focus on monitoring of contaminant levels in fish tissue samples to assess the public health risks associated with seafood consumption. The data from this program will be used to perform risk assessments and to post warnings when it is unsafe to consume seafood from certain locations. The data also will be used to determine when existing warnings can be removed and to track improvements resulting from management actions or other causes to reduce pollutant contamination of the resource.

c. A conceptual framework for monitoring of wetlands habitats has been developed for four major wetlands in Santa Monica Bay: Lower Zuma Creek and Lagoon, Malibu Lagoon, Ballona Lagoon, and Ballona Wetlands. This framework will be used to assess, adjust and further develop existing monitoring efforts as restoration planning progresses in the future. The framework includes a listing of key wetland functions that should be the focus of restoration planning, a description of the role of performance standards in restoration planning and monitoring design, a list of potential indicators and monitoring measurements, and a discussion of statistical issues relevant to indicator selection and monitoring design.

d. A regional monitoring program has been designed to assess the status and health of the pelagic ecosystem in Santa Monica Bay. This program will be implemented in summer/fall of 1997. This program will focus on the measurement of chlorophyll a as an indicator of the health of the phytoplankton community and biomass sampling as an indicator of the health of the zooplankton community. The data from this program will be used as one measure of the overall health of the marine ecosystem.

e. Efforts are underway to design and implement a regional monitoring program for the entire Southern California Bight, including Santa Monica Bay, to assess the status and health of the benthic ecosystem (see Item #5 below).

f. A regional monitoring program currently is being designed to assess the loadings of contaminants entering Santa Monica Bay. This program is scheduled

for implementation by late 1997 or early 1998. This program will focus on the measurement of mass emission loadings to Santa Monica Bay for pollutants of concern from direct discharges to the ocean, as well as direct and indirect inputs from the watersheds draining to the ocean. The data from this program will be used to develop a strategy for reduction of mass emission loads and to track the effectiveness of management actions implemented to accomplish this objective. The data also will be used to evaluate impacts to the health of the marine ecosystem.

g. A comprehensive electronic database has been created for the storage and analysis of surface and ground water monitoring data pertaining to the jurisdiction of the Los Angeles Regional Water Quality Control Board. This database will contain effluent data and receiving water data from inland and ocean waste dischargers, as well as monitoring data from other sources. Automated data submittal procedures will be implemented in 1997 to facilitate loading of monitoring data into the new electronic database. The Regional Board plans to develop a strategy for loading monitoring data collected prior to 1997 into the database, but successful completion of this task probably will require voluntary cooperation from other agencies. Development of a Geographic Information System for display and analysis of monitoring data is scheduled to begin in the second half of 1997.

h. A regional monitoring program has not yet been designed to assess the health of the hard substrate ecosystem, rocky intertidal, subtidal, including kelp beds, in Santa Monica Bay. The goal is to develop a monitoring program design by fall 1997. Implementation would be scheduled for late 1997 or 1998.

5. The Southern California Coastal Water Research Project sponsored a pilot project in 1994 to test a proposed regional monitoring program design for ocean waters of the entire Southern California Bight (from Point Conception in Central California to the Mexican border). The Regional Board and EPA participated in this effort, as well as two major dischargers from the Los Angeles Region (City of Los Angeles, County Sanitation Districts of Los Angeles County(CSDLAC)). The goal is to complete design of a comprehensive regional monitoring program for the Southern California Bight and implement such a program within the next few years.

The 1994 pilot project was designed to address three main questions: 1) What is the spatial extent and magnitude of ecological change on the mainland shelf in the Southern California Bight?; 2) Is the degree of change similar throughout the bight, or is it more severe in particular areas?; 3) Can changes be associated with identifiable sources of pollution? These questions were addressed by simultaneously collecting measures of biological response, contaminant exposure, habitat condition and human use. The monitoring program focused primarily on

indicators associated with the health of the benthic ecosystem (benthic infaunal and demersal fish populations, sediment contamination and toxicity, bioaccumulation of contaminants in fish).

a. Planning is underway to conduct another comprehensive regional monitoring program in 1998. One goal will be to improve the design of the program, based upon the results and experience derived from the initial pilot project. Another goal will be to expand participation in the program by including additional dischargers and other agencies with an interest in the ocean environment. The questions to be addressed and the environmental indicators to be measured during the second survey may be different than those selected for the initial pilot project.

b. One goal of regional monitoring is to standardize sample collection and analytical techniques. The Southern California Bight Pilot Project developed the "Field Operations Manual for Marine Water Column, Benthic and Trawl Monitoring in Southern California" (August 22, 1995). The Regional Board and EPA endorse the use of this manual by all agencies conducting marine monitoring programs. This manual will be revised periodically to incorporate necessary changes in methods and to add additional monitoring techniques.

Development of an operations manual for laboratory analytical methods is expected to be completed by the summer of 1998. The Regional Board and EPA plan to endorse the use of this manual following its adoption by the Southern California Bight Pilot Project.

6. In the near future substantial changes to the compliance monitoring program for the CSDLAC will be required to fulfill the goals of regional monitoring, while retaining the compliance monitoring component required to evaluate the potential impacts from the NPDES discharge. Revisions to the CSDLAC program will be made under the direction of the Regional Board and EPA as necessary to accomplish this goal, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, and the number and size of samples collected. It is a goal to implement the regional monitoring program without significantly increasing the total cost of monitoring for both regional and compliance purposes. CSDLAC may not have a part in all of the monitoring components described above in V. Receiving Water Monitoring Program, Sections A.4.(a-f).
7. Existing discharger ocean monitoring programs should be reassessed to determine the minimum sampling effort required for each monitoring component (e.g., benthic infauna, demersal fish) to demonstrate compliance with discharge limitations. The assistance of a contractor may be needed to perform this assessment and

evaluate available monitoring data. The discharger may be required to help support this study through the contribution of funding or other resources, in exchange for a temporary reduction of normal monitoring requirements.

8. Until such time when a regional monitoring program is developed, the CSDLAC shall perform the analyses described in the following monitoring program.

**B. Receiving water stations**

All receiving water stations, except the shoreline stations, shall be located by Differential Global Positioning System (DGPS). Other means (e.g. visual triangulation, fathometer readings) may be used to improve the accuracy of locating stations.

1. Eight shoreline stations shall be maintained as follows (see figure 1):

<u>Station</u>	<u>Location</u>	<u>Latitude</u>	<u>Longitude</u>
S1	Long Point	33° 44.22'	118° 23.62'
S2	Abalone Cove	33° 44.44'	118° 22.18'
S3	Portuguese Bend	33° 44.02'	118° 21.40'
S5	Whites Point	33° 43.12'	118° 19.35'
S6	Wilder Addition Park	33° 42.59'	118° 17.95'
S7	Cabrillo Beach	33° 42.50'	118° 16.86'
SB	Bluff Cove	33° 47.52'	118° 23.76'
SM	Malaga Cove	33° 48.22'	118° 24.44'

2. Eight inshore stations shall be maintained at the 9.1-meter (30-foot) depth contour as follows (see figure 1):

<u>Station</u>	<u>Location</u>	<u>Latitude</u>	<u>Longitude</u>
IL2	Long Point	33° 44.20'	118° 24.15'
IL3	Portuguese Point	33° 44.25'	118° 22.67'

IL4	Bunker Point	33° 43.46'	118° 21.09'
IL5	Royal Palms	33° 42.91'	118° 19.85'
IL6	W. of Point Fermin	33° 42.44'	118° 18.53'
IL7	Cabrillo Beach	33° 42.20'	118° 17.04'
ILL	Lunada Bay	33° 46.20'	118° 25.74'
ILM	Malaga Cove	33° 48.35'	118° 23.98'

3. Seven nearshore stations shall be maintained at the 18.3-meter (60-foot) depth contour as follows (see figure 1):

<u>Station</u>	<u>Location</u>	<u>Latitude</u>	<u>Longitude</u>
L1	Palos Verdes Point	33° 46.12'	118° 25.82'
L2	Long Point	33° 44.09'	118° 24.22'
L3	Portuguese Point	33° 44.06'	118° 22.72'
L4	Bunker Point	33° 43.40'	118° 21.12'
L5	Royal Palms	33° 42.85'	118° 19.93'
L6	W. of Point Fermin	33° 42.36'	118° 18.53'
L7	Cabrillo Beach	33° 41.83'	118° 17.10'

4. Forty-four offshore stations shall be maintained along eleven traverses ("0-10") perpendicular to the shoreline. Four stations shall be established on each traverse at depths of 30 meters (100 feet) ("D"), 61 meters (200 feet) ("C"), 152 meters (500 feet) ("B") and 305 meters (1000 feet) ("A"). The offshore stations shall be maintained as follows (see figure 2):



<u>Station</u>	<u>Depth</u>		<u>Latitude</u>	<u>Longitude</u>
	<u>Feet</u>	<u>Meters</u>		
0A	1000	305	33° 49.10'	118° 27.25'
0B	500	152	33° 48.70'	118° 26.50'
0C	200	61	33° 48.43'	118° 25.83'
0D	100	30	33° 48.17'	118° 25.36'

<u>Station</u>	<u>Depth</u>		<u>Latitude</u>	<u>Longitude</u>
	<u>Feet</u>	<u>Meters</u>		
1A	1000	305	33° 44.72'	118° 26.99'
1B	500	152	33° 44.97'	118° 26.81'
1C	200	61	33° 45.44'	118° 26.46'
1D	100	30	33° 45.90'	118° 26.12'
2A	1000	305	33° 43.62'	118° 25.72'
2B	500	152	33° 43.95'	118° 25.55'
2C	200	61	33° 44.26'	118° 25.39'
2D	100	30	33° 44.47'	118° 25.28'
3A	1000	305	33° 43.14'	118° 24.66'
3B	500	152	33° 43.43'	118° 24.44'
3C	200	61	33° 43.80'	118° 24.15'
3D	100	30	33° 43.99'	118° 24.03'
4A	1000	305	33° 42.70'	118° 23.38'
4B	500	152	33° 43.00'	118° 23.24'
4C	200	61	33° 43.40'	118° 23.08'
4D	100	30	33° 43.91'	118° 22.83'
5A	1000	305	33° 42.06'	118° 22.28'
5B	500	152	33° 42.54'	118° 22.08'
5C	200	61	33° 42.88'	118° 21.96'
5D	100	30	33° 43.34'	118° 21.79'
6A	1000	305	33° 41.99'	118° 21.56'
6B	500	152	33° 42.18'	118° 21.35'
6C	200	61	33° 42.47'	118° 21.24'
6D	100	30	33° 42.98'	118° 20.91'



7A	1000	305	33° 41.86'	118° 21.19'
7B	500	152	33° 42.05'	118° 21.09'
7C	200	61	33° 42.31'	118° 20.92'
7D	100	30	33° 42.76'	118° 20.61'
8A	1000	305	33° 41.27'	118° 20.34'
8B	500	152	33° 41.53'	118° 20.24'
8C	200	61	33° 41.91'	118° 20.14'
8D	100	30	33° 42.42'	118° 19.79'

<u>Station</u>	<u>Depth</u>		<u>Latitude</u>	<u>Longitude</u>
	<u>Feet</u>	<u>Meters</u>		
9A	1000	305	33° 40.58'	118° 19.46'
9B	500	152	33° 40.89'	118° 19.31'
9C	200	61	33° 41.32'	118° 19.10'
9D	100	30	33° 41.97'	118° 18.78'
10A	1000	305	33° 39.46'	118° 18.08'
10B	500	152	33° 39.73'	118° 17.90'
10C	200	61	33° 40.11'	118° 17.81'
10D	100	30	33° 41.60'	118° 17.34'

5. Twelve trawling stations shall be maintained along four traverses ("T0, T1, T4 and T5") perpendicular to the shoreline. Three stations shall be established on each traverse at depths of 23-27 meters (75-90 feet), 61 meters (200 feet) and 137 meters (450 feet), with each trawl running along a line approximately parallel to the isobath. The trawling stations shall be maintained as follows (see figure 3):

<u>Station</u>	<u>Depth</u>		<u>Mid-Point of Trawl</u>	
	<u>Feet</u>	<u>Meters</u>	<u>Latitude</u>	<u>Longitude</u>
T0 23	75	23	33° 48.19'	118° 25.04'
T0 61	200	61	33° 48.57'	118° 25.84'
T0 137	450	137	33° 48.83'	118° 26.36'
T1 23	90	26	33° 44.65'	118° 25.09'
T1 61	200	61	33° 44.16'	118° 25.23'
T1 137	450	137	33° 44.84'	118° 25.34'
T4 23	90	27	33° 42.79'	118° 20.48'
T4 61	200	61	33° 42.33'	118° 20.92'
T4 137	450	137	33° 44.06'	118° 21.05'

T5 23	75	23	33° 42.29'	118° 18.98'
T5 61	200	61	33° 41.45'	118° 19.31'
T5 137	450	137	33° 41.11'	118° 19.61'

6. Sixteen rocky subtidal diving stations shall be maintained along four traverses ("PV, LP, BP, RP") perpendicular to the shoreline. Four stations/transects shall be established on each traverse at depths of 6 meters (20 feet), 12 meters (40 feet), 18 meters (60 feet) and 24.5 meters (80 feet). The following diving stations shall be maintained at the following latitudes and longitudes (see figure 4):

<u>Station</u>	<u>Depth</u>		<u>Latitude</u>	<u>Longitude</u>
	<u>Feet</u>	<u>Meters</u>		
PV 6	20	6	33° 46.29'	118° 25.81'
PV 12	40	12	33° 46.32'	118° 26.00'
PV 18	60	18	33° 46.30'	118° 26.13'
PV 24	80	24	33° 46.20'	118° 26.26'
LP 6	20	6	33° 44.15'	118° 23.05'
LP 12	40	12	33° 44.12'	118° 24.10'
LP 18	60	18	33° 44.08'	118° 24.14'
LP 24	80	24	33° 44.04'	118° 24.17'
BP 6	20	6	33° 43.51'	118° 21.20'
BP 12	40	12	33° 43.58'	118° 21.39'
BP 18	60	18	33° 43.55'	118° 21.55'
BP 24	80	24	33° 43.52'	118° 21.65'
RP 6	20	6	33° 42.95'	118° 19.53'
RP 12	40	12	33° 42.88'	118° 19.58'
RP 18	60	18	33° 42.77'	118° 19.65'
RP 24	80	24	33° 42.60'	118° 19.81'

- C. Type and Frequency of Sampling  
 (for footnotes, see pages T-32 to T-34)

1. Ocean Water Quality Monitoring

- a. Six shoreline stations (S1-S3, S5-S7, figure 1) shall be sampled daily for total coliform<sup>1</sup>, and a minimum of five times per month for fecal coliform<sup>2</sup> and enterococcus<sup>1</sup>. Visual observations<sup>3</sup> shall be recorded at the same

time bacteriological samples are collected. Shore stations SM and SB, which are sampled a minimum of five times per month, were added to the monitoring and reporting program to ensure protection for public recreational use of coastal ocean waters throughout Santa Monica Bay, and are not intended to be used as compliance sites for JWPCP.

In the event of stormy weather which makes sampling hazardous or impractical, these samples can be omitted, provided that such omissions do not occur more than 10 days in any calendar year.

- b. Eight inshore stations (IL2-IL7, ILL, ILM figure 1) along the 9.1-meter (30-foot) depth contour shall be occupied and sampled a minimum of five times per month for total coliform<sup>1</sup>, enterococcus<sup>1</sup> and fecal coliform<sup>2</sup>. Visual observations<sup>3</sup> shall be recorded at the same time bacteriological samples are collected. Samples shall be collected at 0.5 meters below the surface (designated as surface sample), and within 2 meters of the seabed (designated as bottom sample). Receiving water stations ILL and ILM were added to the monitoring and reporting program to ensure protection for public recreational use of coastal ocean waters throughout Santa Monica Bay, and are not intended to be used as compliance sites for JWPCP.

In the event of stormy weather which makes sampling hazardous or impractical, these samples can be omitted, provided that such omissions do not occur in consecutive weeks or in more than four weeks in a calendar year. Sampling may be conducted at deeper depths during periods of adverse weather.

If a kelp bed is present at any of the six inshore stations, sampling shall be conducted at the edge of the kelp bed rather than at the 30-foot depth contour. The actual depth of all sampling stations shall be reported in the monthly monitoring reports.

- c. Seven nearshore stations (L1-L7, figure 1) along the 18.3- meter (60-foot) depth contour shall be sampled monthly for measurement of photosynthetic light energy. This measurement shall be made:
- 1) with a spherical underwater sensor and hemispherical reference cell on deck, both having equal quantum response from 400-700 nanometers;
  - 2) in units of quanta/sec/cm<sup>2</sup>; and

- 3) all samples shall be taken between 10 a.m. and 2 p.m., ideally when the sun is not obscured by clouds (a slight haze is permissible).

Depth profiles<sup>4</sup> for temperature, dissolved oxygen, transmissivity and salinity shall be conducted monthly at seven nearshore stations (L1-L7). Profiles shall extend from the surface to as close to the bottom as practicable using standard oceanographic sampling procedures.

- d. Twenty-one offshore stations (figure 1) shall be sampled for water quality parameters. These offshore water quality stations shall be maintained at three depths (305, 61 and 30 meters) (1000, 200 and 100 feet) along seven traverses as follows:

1A, 1C, 1D  
3A, 3C, 3D  
5A, 5C, 5D  
7A, 7C, 7D  
8A, 8C, 8D  
9A, 9C, 9D  
10A, 10C, 10D

Depth profiles<sup>4</sup> for temperature, dissolved oxygen, transmissivity, and salinity shall be conducted monthly at the offshore water quality stations. Visual observations<sup>3</sup> shall be recorded during offshore water quality sampling. Monthly depth profiling shall be conducted at nearshore and offshore stations on the same day, if practical.

Discrete samples shall be collected quarterly at all offshore water quality stations for ammonia analyses. Discrete samples shall be collected at 0.5 meters below the surface (designated as surface sample), 2 meters below the pycnocline or mid-depth if the pycnocline is not observable (designated as mid-depth sample) and as close to the seabed as practicable (designated as bottom sample). Depth profiles<sup>4</sup> for pH shall be conducted quarterly at three stations: 8C, 3C, 1C.

## 2. Ocean Bottom Monitoring

- a. Forty-four offshore stations (figure 2) shall be sampled annually during the summer for benthic monitoring using a 0.1 square meter Van Veen sediment grab, or an equivalent device approved by the Executive Officer. The stations shall be established at four depths (30, 61, 152 and 305

meters) (100, 200, 500 and 1000 feet) along eleven traverses ("0-10"). One sample shall be taken at each station. The entire contents of each sample shall be passed through a 1.0 mm screen to retrieve the benthic organisms.

In addition, replicate sampling shall be conducted at three stations: 8C (designated ZID boundary station), 3C (designated gradient station) and 0C (designated reference station). Five replicate samples shall be collected at each of these three stations during the summer benthic sampling period and analyzed separately.

The following determinations shall be made for each sample:

- 1) Identification of all organisms to the lowest possible taxon;
  - 2) total biomass of:
    - (a) molluscs
    - (b) echinoderms
    - (c) annelids
    - (d) crustaceans
    - (e) all other macroinvertebrates
  - 3) community structure analysis for each station<sup>5</sup>.
- b. Eighteen offshore stations (figure 2) shall be sampled annually during the winter for benthic monitoring. One sample shall be collected and analyzed as specified in section 2.a. at each of the following stations:
- 0B, 0C, 0D
  - 1C
  - 2C
  - 3B, 3C, 3D
  - 4C
  - 5C
  - 6B, 6C, 6D
  - 7C
  - 8B, 8C, 8D
  - 9C
- c. A separate grab sample shall be collected at each benthic station, whenever a benthic sample is collected, for sediment chemistry analyses. Sub-samples (upper

two centimeters) shall be taken from the grab and analyzed for dissolved sulfides (porewater), TOC, organic nitrogen and grain size (sufficiently detailed to calculate percent weight in relation to phi size).

- d. Twenty-four offshore stations (figure 2) shall be sampled biennially with a Van Veen sediment grab for selected priority pollutant analysis. Sub-samples (upper two centimeters) shall be taken from the grab and analyzed for the following parameters:

- Arsenic
- Cadmium
- Chromium
- Copper
- Lead
- Mercury
- Nickel
- Silver
- Zinc
- Cyanide
- Phenolic compounds (non-chlorinated)
- Phenolic compounds (chlorinated)
- Total halogenated organic compounds
- Aldrin and Dieldrin
- Endrin
- HCH
- Chlordane
- Total DDT
- DDT derivatives<sup>6</sup>
- Total PCB
- PCB derivatives<sup>7</sup>
- Toxaphene
- Total PAH
- PAH derivatives<sup>8</sup>
- Detected priority pollutants<sup>9</sup>.

In addition, replicate sampling shall be conducted at three stations: 8C (designated ZID boundary station), 3C (designated gradient station) and 0C (designated reference station). Three replicate samples (taken from separate grabs) shall be collected and analyzed separately at each of these three stations during the summer sampling period.

- e. Twelve trawling stations (figure 3) shall be sampled quarterly. Trawling shall be conducted at each station with a standard 7.62 meter head rope otter trawl (1.5

inch mesh in the body of the net and 0.5 inch mesh in the cod end), towed parallel to the specified depth contour for a duration of 10 minutes (elapsed bottom time) at a speed over ground of approximately 2.0 knots.

Fish and invertebrates collected by trawls shall be identified to the lowest possible taxon. Community structure analyses shall be conducted for each station<sup>10</sup>. Abnormalities and disease symptoms shall be described and recorded (e.g., fin erosion, lesions, tumors, parasites and color anomalies).

- f. Twelve rocky subtidal inshore diving stations (figure 4) along four transects shall be sampled annually. The annual surveys shall include qualitative estimates of fish abundance (with a species list), description of conditions on the bottom including water temperature and clarity, and quantitative surveys (with counts of organisms living on the substrate and percent cover of substrate) of transects laid along a uniform depth contour (using a method subject to the approval of the Executive Officer). The annual surveys at the 24.5-meter (80-foot) stations shall be observational, with no quantitative studies required.

Community structure analyses of quantitative transect survey data shall be conducted for each station, subject to approval of the Executive Officer. Temporal and spatial trends in the data shall be analyzed.

- g. Each ocean outfall shall be inspected a minimum of once every five years. Inspections shall include general observations and photographic/videotape records of the outfall pipes and the surrounding ocean bottom. A detailed structural analysis of the pipes shall be conducted using visual inspection from submarine or remotely operated vehicle and survey shall be recorded on videotape. Provide a comprehensive report on the discharge pipe systems from shallow water to their respective termini.
- h. Muscle tissue analyses for selected priority pollutants and lipids shall be conducted annually on Dover sole (*Microstomus pacificus*). Three composites<sup>11</sup> of ten fish each shall be collected from each of the following three zones.

Zone 1 (Outfall) - Royal Palms (Whites Point) to Bunker Point

Zone 2 (Intermediate) - Long Point to Point Vicente

Zone 3 (Distant) - Palos Verdes Point to Bluff Cove

- i. Muscle and liver tissue analyses for selected priority pollutants and lipids shall be



conducted biennially on kelp bass (*Paralabrax clathratus*). Ten individuals<sup>12</sup> shall be collected by divers with spear, hook and line or trawl, from each of the following three zones: (zone 1, zone 2, zone 3)

Each individual muscle tissue sample shall be analyzed separately. Liver tissue samples from each zone may be combined to form two composites representing five individuals each.

- j. Gonadal tissue analyses for selected priority pollutants and lipids shall be conducted biennially on red sea urchins (*Strongylocentrotus franciscanus*). Ten individuals<sup>12</sup> shall be collected by divers from each of the three zones (zone 1, zone 2 and zone 3). Each individual gonadal tissue sample shall be analyzed separately.
- k. Muscle tissue analyses for selected priority pollutants and lipids shall be conducted annually on white croaker (*Genyonemus lineatus*). Ten individuals<sup>13</sup> shall be collected from zone 1 (outfall), zone 2 (intermediate) and zone 3 (distant) by hook and line or trawl. Each individual muscle tissue sample shall be analyzed separately.
- l. Tissue samples from Dover sole, kelp bass, red sea urchins and white croaker shall be analyzed for the following priority pollutants and other parameters:

- Total DDT
- DDT derivatives<sup>6</sup>
- Total PCB
- PCB derivatives<sup>7</sup>
- % moisture
- % lipid

Additional parameters for analysis may be added to this list by the Executive Officer.

#### Footnotes for Receiving Water Monitoring Program

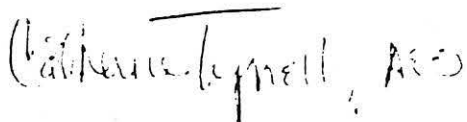
- [1] In addition to reporting the actual concentration of bacterial organisms in each sample collected from shoreline and inshore stations, the median of the latest 6-month period shall also be determined and reported. Bacteriological data collected at shoreline and/or inshore stations within 48 hours following a major storm event need not be included in compliance calculations, but these data shall be provided in the appropriate monitoring reports.

- [2] Fecal coliform sampling may be omitted at the shoreline and inshore stations if the total coliform sampling program demonstrates compliance with the fecal coliform limits.
- [3] Observations of conditions of wind, weather and tidal stage shall be recorded (every four hours during offshore sampling) at the time that samples of the waters of the Pacific Ocean (shoreline, inshore and offshore stations) are collected. Observations of water color, turbidity, odor, and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks and jetties or beach structures, shall also be made and recorded at stations or while in transit. The character and extent of such matter shall be described. The dates, times and depths of sampling and observations shall also be reported.
- [4] Depth profile measurements shall be obtained by using multiple probes to measure parameters throughout the entire water column (from the surface to as close to the bottom as practicable) or by measurement of discrete samples collected at 1.0 meters (3.3 feet) below the surface, at 3.0-meter (9.9-foot) intervals within the pycnocline (when present), as close to the seabed as practicable, and at 6.0-meter (19.8-foot) intervals throughout the water column. At the 305-meter ("A") offshore stations, profiling shall be conducted from the surface to a depth of 100 meters.
- [5] Including number of species, number of individuals per species, species richness, species diversity (e.g., Shannon-Wiener), species evenness and dominance, similarity analysis (e.g., Bray-Curtis, Jaccard or Sorenson), cluster analyses or other appropriate multivariate statistical techniques approved by the Executive Officer. Mean, standard deviation, and 95% confidence limits, if appropriate, shall be calculated for these values.
- [6] At a minimum, 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.
- [7] At a minimum, chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1242, Aroclor-1254 and Aroclor-1260.
- [8] At a minimum, acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.
- [9] Detected priority pollutants are those previously measured in detectable concentrations in effluent, sludge, sediment and tissue analyses. A tentative list of detected priority pollutants shall be submitted to the Executive Officer for approval prior to conducting the priority pollutant analyses.
- [10] Including wet weight of fish and macroinvertebrate species (when combined weight of individuals of one species exceeds 0.2 kg), number of species, number of individuals per

species, total numerical abundance per station, number of individuals in each 1-centimeter size class for each species of fish, species richness, species diversity (e.g., Shannon-Wiener), species evenness, similarity analysis (e.g., Bray-Curtis, Jaccard, Sorenson), cluster analyses, or other appropriate multivariate statistical techniques approved by the Executive Officer. Mean, standard deviation, and 95% confidence limits, if appropriate, shall be calculated for these values.

- [11] Individuals shall be collected during May each year to minimize the variability in reproductive state. The individual fish selected for analysis must measure between 18 and 21 centimeters (standard length). It may be impossible to collect the required number of fish every year at each zone. If 18 to 21 centimeter Dover sole are absent at a given zone, additional trawls need not be attempted. If 18 to 21 centimeter Dover sole are present at a given zone, one additional trawl shall be conducted to attempt to collect the necessary number of individuals.
- [12] Kelp bass in the size range between 240 and 320 mm standard lengths shall be targeted for collection. All red sea urchins shall be of commercially marketable size. Standard length, weight and gonadal index shall be recorded for each individual fish.
- [13] White croaker in the size range 170 and 220 mm standard length shall be targeted for collection. Standard length, weight and gonadal index shall be recorded for each individual.

Ordered by:



DENNIS A. DICKERSON  
Executive Officer

Date: June 16, 1997

FIGURE 1

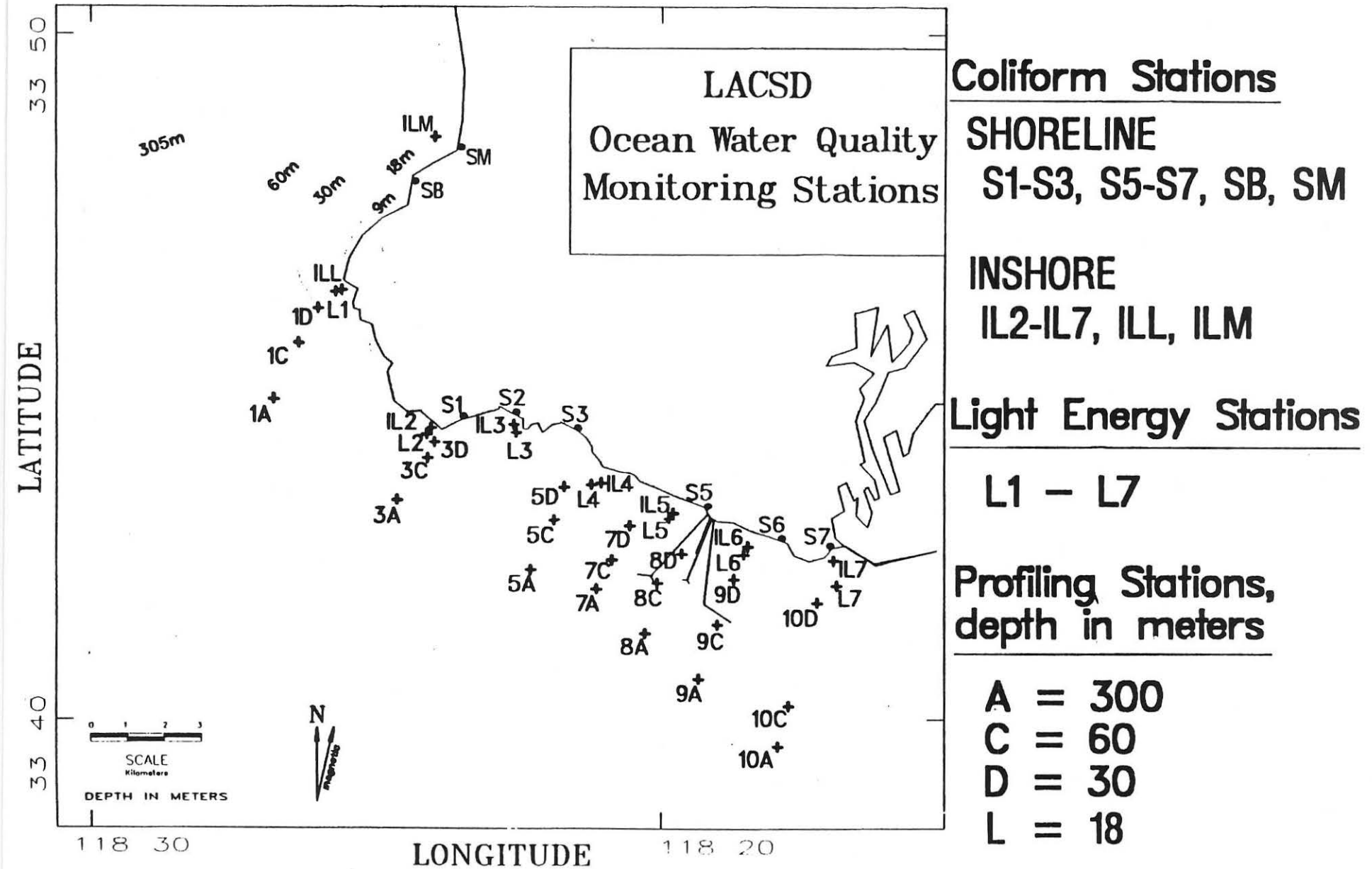


FIGURE 2: OFFSHORE STATIONS

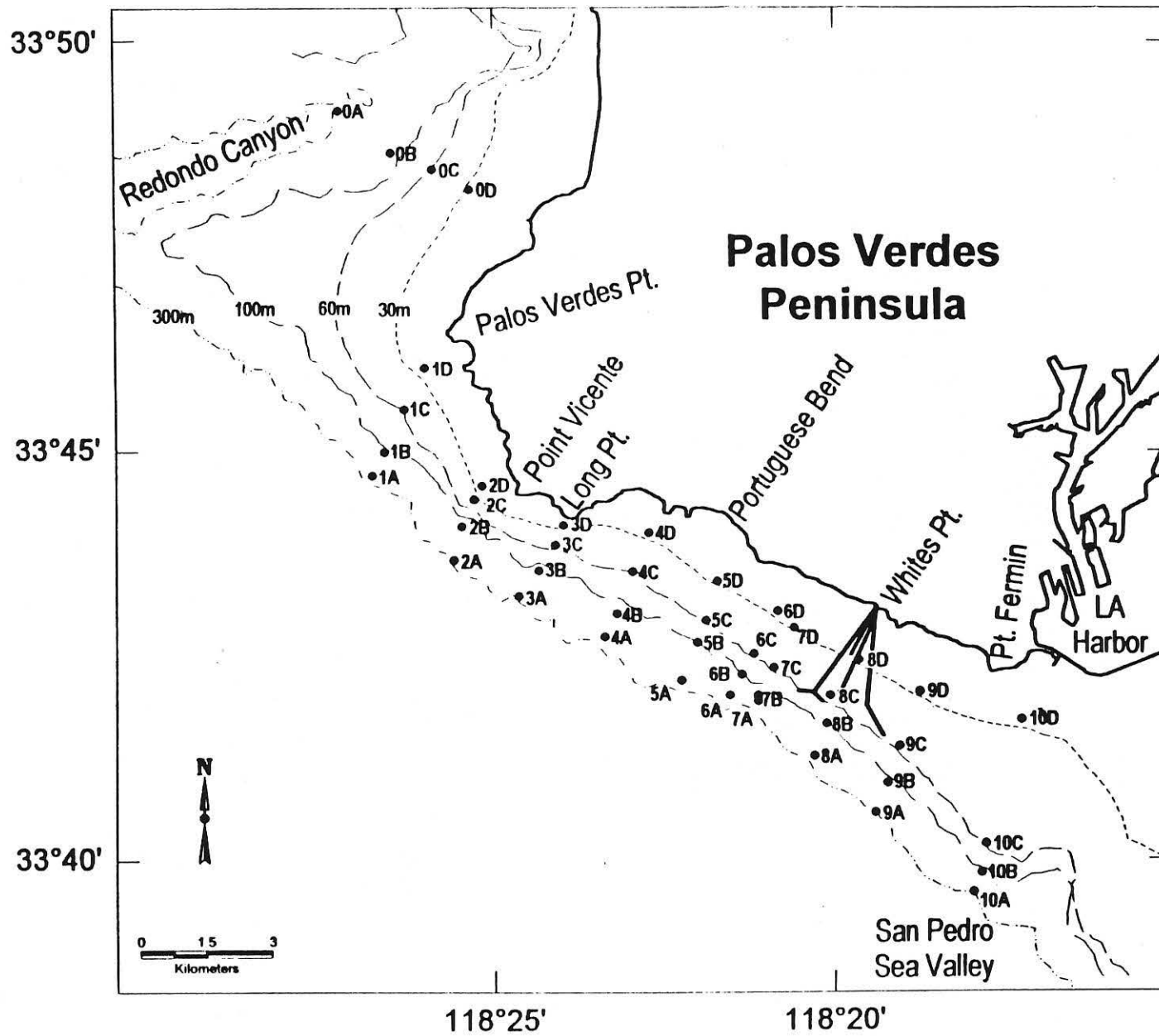


FIGURE 3: TRAWLING STATIONS

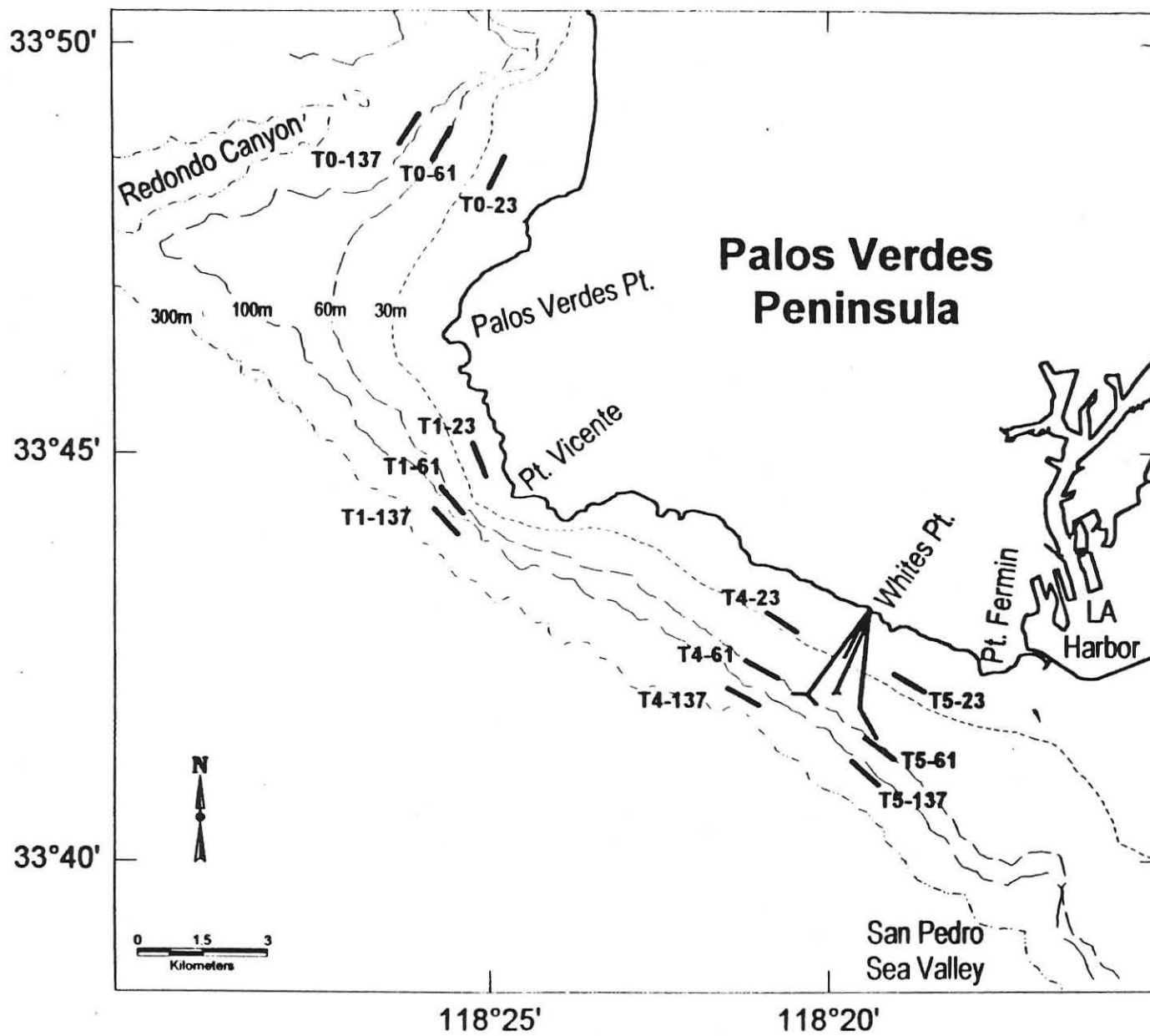
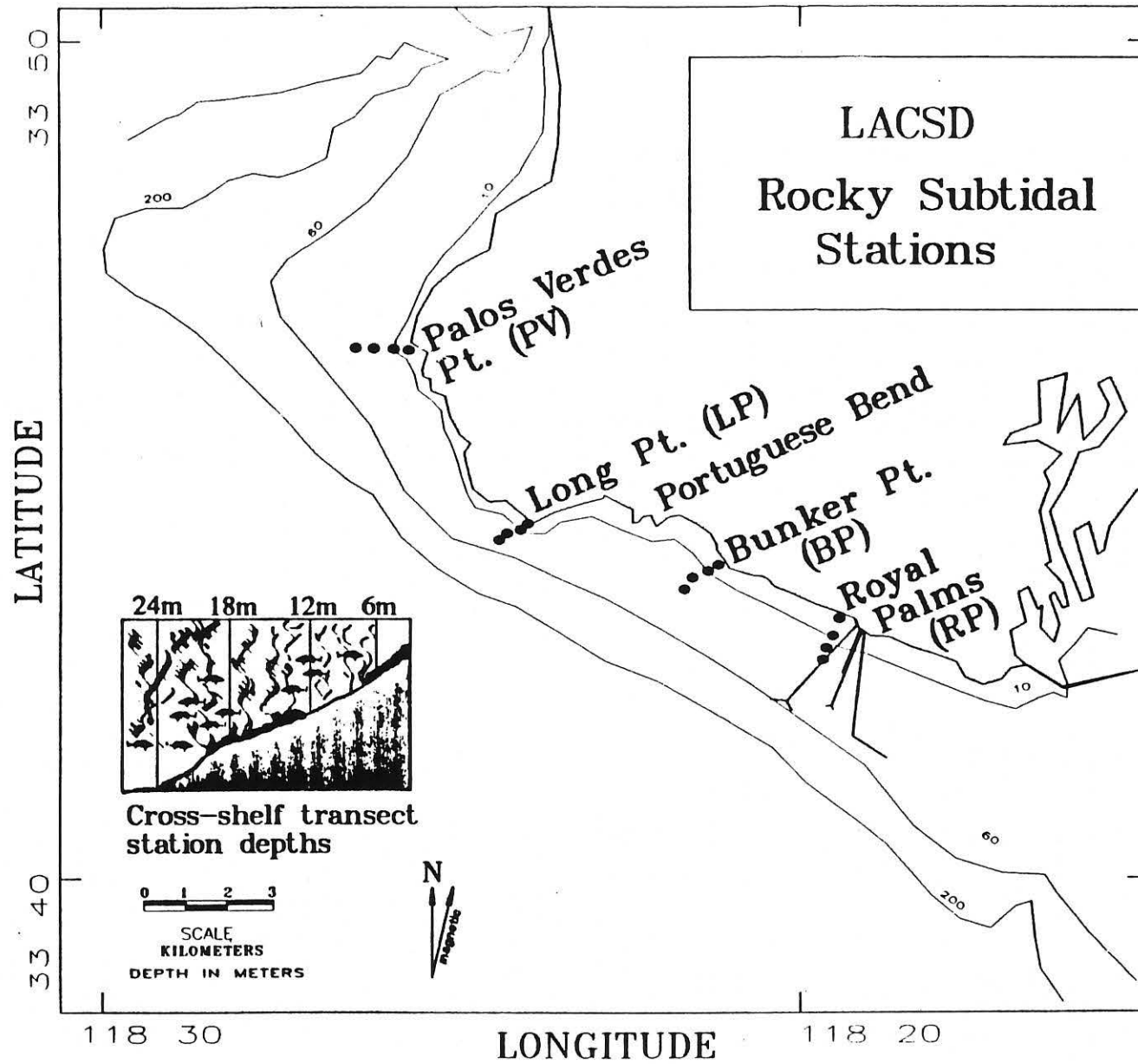


FIGURE 4: DIVING STATIONS





ATTACHMENT 2  
 POLLUTANTS METHOD DETECTION LIMITS

A. USEPA PRIORITY POLLUTANTS	USEPA		TYPE *
	METHOD	MDL (µg/l)	
<b>METALS AND CYANIDE</b>			
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	6	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
<b>VOLATILE COMPOUNDS</b>			
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	0.09	
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	0.03	C

\* C - Carcinogen  
 NC - Noncarcinogen

ATTACHMENT 2  
POLLUTANTS METHOD DETECTION LIMITS

A. USEPA PRIORITY POLLUTANTS (con't)	USEPA		TYPE *
	METHOD	MDL (µg/l)	
<b>Total PAHS</b>			
Acenaphthylene		1.9	C
Anthracene	625	1.9	C
Benzo(A)Anthracene	625	7.8	C
Dibenzo(A,H)Anthracene (1,2,5,6-Dibenzanthracene)	625	2.5	C
Benzo(B)Fluoranthene	625	4.8	C
Benzo(K)Fluoranthene	625	2.5	C
Benzo(GHI)Perylene (1,12-Benzoperylene)	625	4.1	C
Benzo(A)Pyrene	625	2.5	C
Chrysene	625	2.5	C
Fluorene	625	1.9	C
Indeno(1,2,3-CD)Pyrene	625	3.7	C
Phenanthrene	625	5.4	C
Pyrene	625	1.9	C
1,2-Dichlorobenzene	625	1.9	NC
1,2-Diphenylhydrazine	625		C
1,2,4-Trichlorobenzene	625	1.9	
1,3-Dichlorobenzene	625	1.9	NC
1,4-Dichlorobenzene	625	4.4	C
2-Chloronaphthalene	625	1.9	
2,4-Dinitrotoluene	625	5.7	C
2,6-Dinitrotoluene	625	1.9	
3,3-Dichlorobenzidine	625	16.5	C
4-BromoPhenyl Phenyl Ether	625	1.9	
4-ChloroPhenyl Phenyl Ether	625	4.2	
<b>PESTICIDES AND PCBs</b>			
4,4'-DDD	625	2.8	C
4,4'-DDE	625	5.6	C
4,4'-DDT	625	4.7	C
Aldrin	608	0.004	C
Alpha-BHC	608	0.003	C
Alpha-Endosulfan	608	0.014	NC
Beta-BHC	608	0.006	C
Beta-Endosulfan	608	0.004	NC
Chlordane	608	0.014	C
Delta-BHC	608	0.009	C
Dieldrin	608	0.002	C
Endosulfan Sulfate	608	0.066	NC
Endrin	608	0.006	NC
Endrin Aldehyde	608	0.023	NC
Gamma-BHC (Lindane)	608	0.004	
Heptachlor	608	0.003	C
Heptachlor Epoxide	608	0.083	C

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ATTACHMENT 2  
POLLUTANTS METHOD DETECTION LIMITS

A. USEPA PRIORITY POLLUTANTS (con't)	USEPA		TYPE *
	METHOD	MDL (µg/l)	
1,2-Dichloropropane	601	0.04	C
1,2-Dichloropropylene			
1,2-Trans-Dichloroethylene	601	0.1	NC
1,3-Dichloropropylene	601	0.34	NC
2-Chloroethylvinyl Ether	601	0.13	
ACID COMPOUNDS			
2-Chlorophenol	625	3.3	NC
Pentachlorophenol	625	3.6	C
Phenol	625	1.5	NC
2-Nitrophenol	625	3.6	
2,4-Dichlorophenol	625	2.7	NC
2,4-Dimethylphenol	625	2.7	NC
2,4-Dinitrophenol	625	42	NC
2,4,6-Trichlorophenol	625	2.7	NC
4-Nitrophenol	625	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)	625	3	NC
BASE/NEUTRAL COMPOUNDS			
Acenaphthene	625	1.9	NC
Benzidine	625	4.4	C
Bis(2-Chloroethoxy)Methane	625	5.3	NC
Bis(2-Chloroethyl)Ether	625	5.7	C
Bis(2-Chloroisopropyl)Ether	625	5.7	NC
Bis(2-Ethylhexyl)Phthalate	625	2.5	C
Bis(Chloromethyl)Ether			C
Butyl Benzyl Phthalate	625	2.5	NC
Diethyl Phthalate	625	2.2	NC
Dimethyl Phthalate	625	1.6	NC
Di-N-Butyl Phthalate	625	2.5	NC
Di-N-Octyl Phthalate	625	2.5	
Fluoranthene	625	2.2	NC
Hexachlorobenzene	625	1.9	C
Hexachlorobutadiene	625	0.9	C
Hexachlorocyclopentadiene			NC
Hexachloroethane	625	1.6	C
Isophorone	625	2.2	NC
Naphthalene	625	1.6	NC
Nitrobenzene	625	1.9	NC
N-Nitrosodimethylamine	625	0.15	C
N-Nitrosodi-N-Propylamine	625		C
N-Nitrosodiphenylamine	625	1.9	C
TCDD			

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ATTACHMENT 2  
 POLLUTANTS METHOD DETECTION LIMITS

A. USEPA PRIORITY POLLUTANTS (con't)	USEPA		TYPE *
	METHOD	MDL (µg/l)	
Total PCBs		65	
PCB-1016			C
PCB-1221			C
PCB-1232			C
PCB-1242	608	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			
Banum			
Molinate			
Atrazine			
1,2-Cis-Dichloroethylene			
Thiobencarb			
Glyphosate			
Acetone			
Molybdenum	246.2	1	
Vanadium	286.2	4	
Aluminum	202.2	3	

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 NC - Noncarcinogen