ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section II of this Order/Permit, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order/Permit.

This Order/Permit has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order/Permit that are specifically identified as "not applicable" have been determined not to apply to this Discharger. sections or subsections of this Order/Permit not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table 1. Facility Information

WDID	
Discharger	City of Los Angeles
Name of Facility	Hyperion Treatment Plant
Facility Address	12000 Vista del Mar Boulevard
	Playa del Rey, CA 90293
	Los Angeles County
Facility Contact, Title and Phone	Steven Fan, Sanitation Wastewater Manager III, (310) 648-5168
Authorized Person to Sign and Submit Reports	Steven Fan, Sanitation Wastewater Manager III, (310) 648-5168
Mailing Address	433 South Spring Street, Suite 400 Los Angeles, CA 90013
Billing Address	same
Type of Facility	POTW
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Reclamation Requirements	None
Facility Permitted Flow	450 (in million gallons per day)
Facility Design Flow	450 (in million gallons per day)
Watershed	Santa Monica Bay Watershed Management Area
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

A. The City of Los Angeles (hereinafter Discharger) is the owner and operator of Hyperion Treatment Plant (hereinafter, HTP or Facility and its appurtenances), a

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municipal publicly owned treatment works (POTW). USEPA and the Regional Water Board have classified the Hyperion Treatment Plant as a major discharger. It has a Threat to Water Quality and Complexity rating of 1-A pursuant to California Code of Regulations (CCR), Title 23, section 2200.

For the purposes of this Order/Permit, references to the "discharger" or "permittee" in applicable federal and State laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Hyperion Treatment Plant discharges wastewater to the Pacific Ocean, a water of the United States, and is currently regulated by Order R4-2005-0020 (NPDES Permit No. CA 019991), which was issued on April 11, 2005, and expired on May 14, 2010. The terms and conditions of the current Order/Permit have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimiation System (NPDES) permit are issued pursuant to this Order/Permit.

C. The Discharger submitted a Report of Waste Discharge, dated October 27, 2009, and applied for renewal of its WDR and NPDES permit to discharge up to 450 MGD of secondary-treated wastewater from the Hyperion Treatment Plant. The application was deemed complete on December 23, 2009. A site visit was conducted on October 7, 2010, to observe operations and to collect additional data to develop permit limitations and conditions.

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II. BACKGROUND - CONSENT DECREE AND LEGAL ISSUES

A. The operations and discharges from the Hyperion Treatment Plant and Hyperion collection system are also regulated under the following enforcement actions:

1. Amended Consent Decree entered on February 19, 1987, in United States and State of California v. City of Los Angeles, No. CV 77-3047-HP (C.D. Cal.);

2. Settlement Agreement, Los Angeles Superior Court Case No. C 665238, dated January 29, 1990, in State of California v. City of Los Angeles; and

3. Regional Water Board Cease and Desist Order 98-073 adopted on September 14, 1998, amended by Order No. 00-128 adopted on August 31, 2000.

B. In 1987, the City entered into an Amended Consent Decree (No. CV 77-3047-HP) with USEPA and the Regional Water Board. The Amended Consent Decree required the City under time schedules to undertake the following:

1. Eliminate the discharge of sewage sludge into the Pacific Ocean from Hyperion Treatment Plant by December 31, 1987 (status: completed);

2. Comply with interim effluent limitations (status: interim limits are not applicable as of January 1, 1999);

3. Complete construction and begin operation of the Hyperion Energy Recovery System by June 30, 1989 (status: completed, but determined to be a technological failure and abandoned);

4. Achieve and thereafter maintain compliance with full secondary treatment at Hyperion Treatment Plant by December 31, 1998 (status: completed and achieved compliance before the deadline);

5. Prepare a storm water pollution reduction study and implement the recommended measures thereof (status: completed).

C. On June 7, 1991, the United States and the State of California filed a supplemental complaint under the existing Consent Decree CV 77-3047-HP (C.D. Cal.) for alleged pretreatment violations against the City. Settlement of the complaint had been concluded and modification to the Consent Decree was entered into court records on August 7, 2000. The settlement requires the City to implement the Westside Water Recycling Extension Project and the Santa Monica Bay Storm Drain Low-Flow Diversion Project. The Santa Monica Urban Runoff Recycling Facility (SMURRF), completed in 2000, is owned and operated by the City of Santa Monica. As the first full-scale, dry-weather runoff recycling facility in the U.S., SMURRF reclaims dry-weather run-off from storm drains and treats the water for reuse in landscape irrigation and toilet flushing. Since the City of Los Angeles contributes about half of the runoff treated at SMURRF, the City of Los Angeles pays for half of the capital and operations and maintenance costs of SMURRF, pursuant to an agreement with the City of Santa Monica.

D. In October 1987, the California Attorney General, on behalf of the Regional Water Board, filed a complaint with the Los Angeles Superior Court (Case No. C 665238) for civil penalties regarding unpermitted discharges to Discharge Point 001 and raw sewage overflows to surface waters from the Hyperion collection system. A settlement agreement was entered into on January 29, 1990. In lieu of civil penalties, the City was required to implement 23 projects to improve and enhance its collection system and benefit the waters in the Greater Los Angeles Area. Twenty two of the 23 Settlement Agreement projects were completed. The remaining project deals with the Los Angeles Zoo Wastewater Treatment Facility. Two of the original three elements of the Zoo project (construction of the retention basin and pump station for collection of the Zoo's wastewater and diversion to the North Outfall Sewer force main) were completed in 1995. The City proposes to substitute Best Management Practices (BMPs) for the stormwater peripheral drainage system, the third element of the original design concept. After reviewing the study, the Regional Water Board rejected the City's proposal because the proposed BMPs can not achieve the objectives of the original Settlement Agreement. In a letter dated November 5, 2008, the Regional Water Board approved the Fremont High School Stormwater Improvements Project

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(Freemont Project) as a substitute for the remaining project, the Los Angeles Zoo Perimeter Drain System (PDS). The Regional Water Board agreed that the PDS has ceased to be necessary due to the completion of the North East interceptor Sewer and East Central Interceptor Sewer. The Freemont Project includes the implementation of the following five best management practices- Stormwater Diversion, Pollutant Settlement, Sediment Forebay, Dry Extended Detention/Retention Basin, and "Smart" (programmable) Irrigation System.

E. Sanitary sewer overflows (SSO) have been a recurring problem in certain areas of the City; in particular, in the South Central area, where sewers do not have adequate capacity to absorb inflow and infiltration that occurs during wet weather. For the entire City, between the wet weather period of February 3, 1998, through May 14, 1998, there were 99 separate sanitary overflows resulting in 44 million gallons of raw sewage released. On September 14, 1998, the Regional Water Board issued Cease and Desist Order (CDO) No. 98-073 to the City, amended by CDO No. 00-128 adopted on August 31, 2000. The CDO requires the City to provide adequate capacity to its wastewater collection system by constructing additional sewer alignments and/or upgrading the existing sewer system over a seven-year period (1998 to 2005). Additionally, on August 5, 2004, the United States, the State of California, Santa Monica Baykeeper, a coalition of community groups and the City of Los Angeles lodged a settlement that would resolve the parties' Clean Water Act and Porter-Cologne Act litigation regarding the City of Los Angeles' SSOs and sewage odors. This settlement underwent public review and comment. The Settlement Agreement and Final Order was filed on October 28, 2004 and entered by the District Court on October 29, 2004, and is now being implemented. The Settlement Agreement and Final Order establishes a ten-year program designed to reduce SSOs and sewage odors to the maximum extent feasible.

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III. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or Controls

The Discharger owns and operates the Hyperion Treatment Plant located at 12000 Vista del Mar Boulevard, Playa Del Rey, California. The plant has a dry weather average design treatment capacity of 450 million gallons per day (MGD) and a wet weather peak hydraulic capacity of approximately 850 MGD. In 2009, the HTP treated an average effluent flow of 312 MGD and discharged an average of 275 MGD. Approximately 37 MGD of the secondary effluent was sent to West Basin Water Recycling Facility for advanced treatment and reuse.

The HTP is part of a joint outfall system commonly known as the Hyperion Treatment System, which consists of the wastewater collection system, the Hyperion Treatment Plant and three upstream wastewater treatment plants: Donald C. Tillman Water Reclamation Plant (Tillman WRP), Los Angeles-Glendale Water Reclamation Plant (LAGWRP), Burbank Water Reclamation Plant (Burbank WRP) (owned and operated by a contract city), and outfalls. The Hyperion Treatment

System collects, treats, and disposes of sewage from the entire City (except the Wilmington-San Pedro Area, the strip north of San Pedro, and Watts) and from a number of cities and agencies under contractual agreements. Approximately, 85% of the sewage and commercial/industrial wastewater comes from the City of Los Angeles. The remaining 15% comes from the Contract Cities and Agencies. There are approximately four million people in the Hyperion Treatment System Service Area.

Currently, the HTP accepts dry weather urban runoff that is diverted from storm drains into the City's collection system from April 1 to October 31. The City plans to extend this diversion operation from the dry summer months to year-round in order to conform to the six-year compliance schedule for bacteria concentration during winter dry weather, contained in the Santa Monica Bay Beach Dry-weather Bacteria TMDL (Resolution No. 02-004 and Resolution No. 2002-022) adopted by the Regional Water Board.

Sludge from the City's two upstream plants (Tillman WRP and LAGWRP) is returned to the wastewater collection system and flows to the Hyperion Treatment Plant for treatment. Discharges from Tillman WRP and LAGWRP are regulated by Order No. R4-2010-0060 (NPDES Permit No. CA0056227) and Order No. R4-2010-0059 (NPDES Permit No. CA0053953), respectively. In addition, sludge generated from the Burbank WRP is also returned to the City of Burbank sewer system for treatment at the Hyperion Treatment Plant. The influent to the Burbank WRP can be diverted/bypassed to the Hyperion Treatment Plant during periods of emergency. Discharges from the Burbank WRP are regulated under R4-2010-0058 (NPDES CA0055531).

The Hyperion Treatment Plant has provided full secondary treatment since December 1998. Preliminary and primary wastewater treatments consist of screening, grit removal, and primary sedimentation with coagulation and flocculation. In secondary treatment, the primary effluent is biologically treated in a high purity oxygen activated sludge process comprised of a cryogenic oxygen plant, nine secondary reactor modules and 36 secondary clarifiers. Each secondary reactor module is designed to handle 50 mgd of flow which results in a total treatment capacity of 450 mgd producing secondary effluent. After clarification, undisinfected secondary effluent is discharged into Santa Monica Bay through a five mile submerged outfall pipe. Discharge up to 325 mgd flows by gravity to the outfall, or is pumped at the Effluent Pumping Plant when flows exceed 325 mgd.

Solid fractions recovered from wastewater treatment processes include grit, primary screenings, primary sludge and skimmings, thickened waste activated sludge, digested sludge screenings and digester cleaning solids. The fine solids (grit, primary screenings, digested sludge screenings, digester cleaning solids) that consist of primarily inorganic materials are hauled away to landfills. The remaining solid fractions (primary sludge and skimmings, thickened waste activated sludge) are anaerobically digested onsite. The digested solids are screened and dewatered

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using centrifuges. Since January 1, 2003, the Hyperion Treatment Plant has implemented full thermophilic digestion to generate Class A "EQ" biosolids. The biosolids (treated sewage sludge) are beneficially reused offsite for land application and composting projects. The digester gas is cleaned and a major part of the gas is currently exported to the Los Angeles Department of Water and Power's Scattergood Steam Generating Plant, located immediately adjacent to the Hyperion Treatment Plant. The exported digester gas is used as fuel in the generation of electricity. In return, the generating plant provides steam for digester heating for the Hyperion Treatment Plant. During interruptions in the export of steam from the Scattergood Steam Generation Plant, digester gas can be used as fuel for in-plant boilers that provide steam to heat the anaerobic digesters. Any remaining non-exported digester gas may be flared, if necessary, and is regulated under a flare operation permit from the South Coast Air Quality Management District (AQMD).

The Hyperion Treatment Plant has an industrial wastewater Pretreatment Program which is approved by USEPA and the Regional Water Board. The City continues to implement the Pretreatment Program throughout the Hyperion Treatment Plant's service area. However, since Contract Cities and Agencies operate their respective collection systems that are tributary to the City's main trunk lines, some contract cities and agencies also perform certain nondomestic source control activities, e.g., Fats, Oils, and Grease (FOG) program.

The Hyperion Treatment Plant collects and treats in-plant storm water runoff except that, during intense storms, undisinfected storm water overflows may be discharged through Outfall 001. This storm water discharge is regulated under the State Board's *NPDES General Permit No. CAS00001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities* contained in Order No. 97-03-DWQ, adopted on April 17, 1997. The City has developed and implemented a *Storm Water Pollution Prevention Plan* as required by the general permit.

Water Reclamation. A small fraction (approximately 37 MGD in 2009) of the HTP's secondary effluent is sent to West Basin Water Recycling Facility (West Basin Facility) for advanced treatment and reuse. The West Basin Municipal Water District (West Basin) operates the West Basin Facility in El Segundo. West Basin is contractually entitled to receive up to 70 MGD of secondary effluent from HTP. West Basin Facility provides tertiary treatment and/or advanced treatments such as microfiltration and reverse osmosis (RO) to the Hyperion secondary effluent to produce Title 22 and high purity recycled water. Title 22 recycled water is used for beneficial irrigiation, industrial applications including cooling water and boiler feed water, and other purposes. The RO-treated recycled water is primarily injected into the West Coast Basin Barrier Project to control seawater intrusion.

The waste brine from West Basin Facility is discharged to the ocean through Hyperion's five-mile outfall (Discharge Point 002) via a waste brine line from West

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Basin Facility. Although the waste brine is discharged through Hyperion's outfall, it is regulated under separate waste discharge requirements and NPDES permit.

The Hyperion Treatment Plant ceased the irrigation use of in-plant chlorinated secondary treated wastewater in January 1999. Instead, the plant started using tertiary recycled water from West Basin Facility in August 1999.

B. Discharge Points and Receiving Waters

The HTP has three ocean outfalls. However, only two outfalls (i.e., 001 and 002) are authorized discharge points for discharging treated wastes to the Pacific Ocean. The three ocean outfalls are described as follows:

1. Discharge Points 001 and 002

Table 2. Description of the Outfalls

Discharge Point No.	001	002
Diameter of Pipe at Discharge Terminus (feet)	12	12
Outfall Distance Offshore (feet)	5,364	26,525 (including a Y-shaped diffuser of two 3,840-ft legs)
Discharge Depth Below Surface Water (feet)	50	187
Latitude	33° 55.095'	33° 54.718' (Outfall at start of wye structure) 33° 55.160' (North terminus of wye strcture) 33° 54.039' (South terminus of wye strcture)
Longitude	118° 26.844'	

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Discharge Point 001

Discharge Point 001 is commonly referred to as the "one-mile outfall". It is a 12-foot diameter outfall terminating approximately 5,364 feet (1.6 kilometers (km)) west-southwest of the treatment plant at a depth of approximately 50 feet (15 meters (m)) below the ocean surface (Latitude: 33° 55.095', Longitude 118°). This outfall is permitted for emergency discharge of chlorinated secondary treated effluent during extremely high flows, and preventative maintenance, such as routine opening and closing the outfall gate valve(s) for exercising and lubrication. However, during intense storms or storms associated with plant power outages, direct discharge of undisinfected storm water overflow is also permitted at this outfall. This Order/Permit require the City to notify the Regional Water Board and USEPA in advance of any planned preventative maintenance that results in discharges through Discharge Point 001.

The ocean water in this area is not listed as impaired under the 2006 Clean Water Act (CWA) section 303(d) List.

Discharge Point 002

Discharge Point 002 is commonly referred to as the "five-mile outfall". It is a 12-foot diameter outfall terminating approximately 26,525 feet (8.1 km) west-southwest of the treatment plant at a depth of approximately 187 feet (57m) below the ocean surface. This outfall is located north of Discharge Point 001 and ends in a "Y" shaped diffuser consisting of two 3,840-foot legs (Latitude: 33° 54.718', Longitude: 118° 31.287') (North terminus of wye structure– Latitude 33° 55.160', Longitude 118° 31.709'; South terminus of wye structure– Latitude 33° 54.039', Longitude 118° 31.636'). This is the only outfall permitted for the routine discharge of undisinfected secondary treated effluent.

Outfall No. 003

This is a 20-inch diameter outfall terminating approximately 35,572 feet (10.8 km) west of the treatment plant, at the head of a submarine canyon at a depth of approximately 300 feet (91m) below the ocean surface (Latitude 33° 55.622', Longitude 118° 33.183'). This outfall had been used to discharge sludge. Under the 1987 amended Consent Decree No. CV77-3047-HP, this outfall was deactivated in November 1987 when sludge discharge to the ocean was terminated. Near the head of this outfall, a spool piece was removed and the discharge pipe was blind-flanged to prevent any possible discharge of sewage or sludge into the Pacific Ocean. This outfall has not been maintained since it was taken out of service. Any discharge from this outfall is prohibited.

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C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in the existing Order/Permit for discharges from Discharge Points EFF-002 and EFF-001 and representative monitoring data from the term of the previous Order/Permit are as follows:

Table 3. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation in Order R4-2005-0020			Monitoring Data (From July 2005 –July 2009)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Conventional/Non-Conventional							
BOD	mg/L	30	45	--	23	23	23
Total Suspended Solids	mg/L	30	45	--	12	15	24
Oil & Grease	mg/L	25	40	--	13	22	38
Settleable Solids	mL/L	1.0	1.5	3.0	<0.1	0.3	1.5
Total Coliform	MPN/100mL	--	--	--	119323	160000	160000
Fecal Coliform	MPN/100mL	--	--	--	60940	160000	160000
Enterococcus	MPN/100mL	--	--	--	3746	16000	16000
Nitrate-N	mg/L	--	--	--	0.22	--	--
Nitrite-N	mg/L	--	--	--	0.92	--	--
pH	pH Unit	6.0 – 9.0			7.4	7.5	7.6
Temperature	^{O}C				29	29	29
Turbidity	NTU	75	100	225	11.7	13.6	18.8

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Table 3. Historic Effluent Limitations and Monitoring Data (Continued)

Parameter	Units	Effluent Limitation in Order No. R4-2005-0020			Monitoring Data Monitoring Data (From July 2005 –July 2009)			
		Average Monthly	Average Weekly	Maximum Daily	Minimum Nondetect	Maximum Nondetect	Minimum Detected	Maximum Detected
Marine Aquatic Life Protection								
Arsenic (As)	µg/L	--	--	--	<1	<1	1.1	3.5
Cadmium (Cd)	µg/L	--	--	--	<0.01	<0.4	--	--
Chromium VI (Cr VI)	µg/L	--	--	--	<0.5	<2	--	--
Chromium Total (Cr)	µg/L	--	--	--	<0.5	<10	--	--
Copper (Cu)*	µg/L	16	140	160	--	--	12.9	28
Lead (Pb)	µg/L	--	--	--	<0.5	<3	--	--
Mercury (Hg)	µg/L	--	--	--	<0.004	<0.022	--	--
Nickel (Ni)	µg/L	--	--	--	<20	<20	7.95	21.8

Parameter	Units	Effluent Limitation in Order No. R4-2005-0020			Monitoring Data Monitoring Data (From July 2005 –July 2009)			
		Average Monthly	Average Weekly	Maximum Daily	Minimum Nondetect	Maximum Nondetect	Minimum Detected	Maximum Detected
Selenium (Se)	µg/L	--	--	--	<1	<1	1	1.6
Silver (Ag)	µg/L	--	--	--	<0.2	<0.25	0.57	2.24
Zinc (Zn)	µg/L	--	--	--	<20	<20	15.8	118
Cyanide*	µg/L	14	56	140	<0.004	<0.004	0.005	0.005
Total Residual Chlorine*	mg/L	--	--	--	<0.1	<0.1	0.1	0.3
Ammonia-N*	mg/L	8.4	34	84	--	--	33.7	41.8
Acute Toxicity**	TUa	--	2.8	2--	--	--	0.59	3
Chronic Toxicity*	TUc	--	13	--	--	--	10	142.9
Chronic Toxicity**	TUc	--	84	--	--	--	10	142.9
Non-Chlorinated Phenolic Compouds	µg/L	--	--	--	<0.21	<2	--	--
Chlorinated Phenolic Compouds	µg/L	--	--	--	<0.4	<5	--	--
Endosulfan	µg/L	--	--	--	<0.002	<0.008	--	--
Endrin	µg/L	--	--	--	<0.001	<0.007	--	--
HCH*	µg/L	0.056	0.11	0.17	<0.002	<0.003	--	--
Human Health Toxicants – Non Carcinogens								
Acrolein	µg/L	--	--	--	<0.61	<1.96	--	--
Antimony	µg/L	--	--	--	<0.5	<0.5	0.84	1.53
Bis (2-Chloroethoxy) methane	µg/L	--	--	--	<0.05	<0.05	--	--
Bis (2-Chloroisopropyl) ether	µg/L	--	--	--	<0.05	<0.35	--	--
Chlorobenzene	µg/L	--	--	--	<0.06	<0.15	--	--
Chromium III (Cr)	µg/L	--	--	--	<0.5	<10	--	--
Di-n-Butyl Phthalate	µg/L	--	--	--	<0.15	<10	--	--
Dichlorobenzene	µg/L	--	--	--	<0.06	<2	--	--
Diethyl phthalate	µg/L	--	--	--	<0.06	<2	--	--
Dimethyl phthalate	µg/L	--	--	--	<0.08	<0.27	--	--
4,6-dinitro-2-methylphenol	µg/L	--	--	--	<0.4	<0.49	--	--
2,4-dinitrophenol*	µg/L	56	--	--	<0.08	<0.130	--	--
Ethylbenzene	µg/L	--	--	--	<0.08	<0.17	--	--
Fluoranthene	µg/L	--	--	--	<0.0047	<0.2	--	--
Hexachlorocyclopentadiene	µg/L	--	--	--	<2.42	<2.9	--	--
Nitrobenzene	µg/L	--	--	--	<0.05	<0.33	--	--

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Parameter	Units	Effluent Limitation in Order No. R4-2005-0020			Monitoring Data Monitoring Data (From July 2005 –July 2009)			
		Average Monthly	Average Weekly	Maximum Daily	Minimum Nondetect	Maximum Nondetect	Minimum Detected	Maximum Detected
Thallium	µg/L	--	--	--	<0.01	<1	--	--
Toluene	µg/L	--	--	--	<0.08	<2	--	--
Tributyltin*	µg/L	0.02	--	--	<1	<1	--	--
Tributyltin**	µg/L	0.12	--	--	<1	<1	--	--
1,1,1-trichloroethane	µg/L	--	--	--	<0.05	<0.29	--	--
Human Health Toxicants - Carcinogens								
Acrylonitrile*	µg/L	1.4	--	--	<0.08	<0.96	--	--
Aldrin	µg/L		--	--	<0.003	<0.09	--	--
Benzene	µg/L		--	--	<0.07	<0.22	--	--
Benzidine	µg/L		--	--	<1.52	<5	--	--
Beryllium (Be)*	µg/L	0.46	--	--	<0.04	<2	--	--
Bis (2-Chloroethyl) ether*	µg/L	0.63	--	--	<0.09	<0.32	--	--
Bis(2-ethylhexyl)-phthalate- *	µg/L	49	--	--	<1	<5	--	--
Carbon tetrachloride	µg/L	--	--	--	<0.09	<0.34	--	--
Chlordane*	µg/L	0.0003	--	--	<0.003	<0.09	--	--
Chlordane**	µg/L	0.0019	--	--	<0.003	<0.09	--	--
Chlorodibromomethane	µg/L	--	--	--	<2	<2	2.16	2.16
Chloroform	µg/L	--	--	--	--	--	2.05	8.65
DDT*	µg/L	0.0024	--	--	<0.002	<0.006	--	--
DDT**	µg/L	0.014	--	--	<0.002	<0.006	--	--
1,4-Dichlorobenzene	µg/L	--	--	--	<0.07	<1	1.25	2.05
3,3'-Dichlorobenzidine	µg/L		--	--	<0.11	<1.79	--	--
1,2-dichloroethane	µg/L	--	--	--	<0.03	<0.1	--	--
1,1-dichloroethylene	µg/L	--	--	--	<0.12	<0.2	--	--
Dichlorobromomethane	µg/L	--	--	--	<2	<2	--	--
Dichloromethane	µg/L	--	--	--	<0.12	<2	2.13	6.49
1,3-dichloropropene	µg/L	--	--	--	<0.09	<0.15	--	--
Dieldrin	µg/L		--	--	<0.0009	<0.005	--	--
2,4-Dinitrotolulene	µg/L	--	--	--	<0.08	<0.13	--	--
1,2-Diphenylhydrazine	µg/L		--	--	<0.06	<0.21	--	--
Halomethanes	µg/L	--	--	--	<0.21	<2	--	--
Heptachlor	µg/L		--	--	<0.001	<0.007	--	--

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Parameter	Units	Effluent Limitation in Order No. R4-2005-0020			Monitoring Data Monitoring Data (From July 2005 –July 2009)			
		Average Monthly	Average Weekly	Maximum Daily	Minimum Nondetect	Maximum Nondetect	Minimum Detected	Maximum Detected
Heptachlor epoxide	µg/L		--	--	<0.001	<0.003	--	--
Hexachlorobenzene	µg/L		--	--	<0.07	<0.18	--	--
Hexachlorobutadiene	µg/L	--	--	--	<0.07	<0.17	--	--
Hexachloroethane	µg/L	--	--	--	<0.07	<0.17	--	--
Isophorone	µg/L	--	--	--	<0.07	<1	--	--
N-Nitrosodimethylamine	µg/L	--	--	--	<0.17	<0.5	--	--
N-Nitrosodi-N-propylamine-Outfall 001	µg/L	5.3	--	--	<0.13	<0.36	--	--
N-Nitrosodiphenylamine	µg/L	--	--	--	<0.09	<0.86	--	--
PAH*	µg/L	0.123	--	--	<0.0037	<0.36	--	--
PAH**	µg/L	0.748	--	--	<0.0037	<0.36	--	--
PCBs*	µg/L	0.0003	--	--	<0.07	<0.49	--	--
PCBs**	µg/L	0.002	--	--	<0.07	<0.49	--	--
TCDD equivalents*	µg/L	0.055E-06	--	--	<1E-06	<1.E-06	--	--
TCDD equivalents**	µg/L	0.33E-06	--	--	<1E-06	<1.E-06	--	--
11,1,2,2-tetrachloroethane	µg/L	--	--	--	<0.11	<0.19	--	--
Tetrachloroethylene	µg/L	--	--	--	<0.1	<2	2.37	4.03
Toxaphene	µg/L		--	--	<0.02	<0.1	--	--
Trichloroethylene	µg/L	--	--	--	<0.08	<0.18	--	--
1,1,2-trichloroethane	µg/L	--	--	--	<0.05	<0.2	--	--
2,4,6-Trichlorophenol	µg/L	--	--	--	<0.09	<0.45	--	--
Vinyl chloride	µg/L	--	--	--	<0.07	<0.22	--	--

* Indicates effluent limitations for Discharge Point 001
** Indicates effluent limitations for Discharge Point 002.
< Indicates that the pollutant was not detected at that concentration level.
-- Indicates not applicable.

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D. Compliance Summary

Monitoring data from 2005 to 2009 indicate that the Discharger has consistently complied with the effluent limitations of Order No. R4-2005-0020, except for the following exceedances:

Settleable Solids

- Daily maximum limitation of 3.0 ml/L on April 7, 2005.
- Weekly average limitation of 1.5 ml/L on April 9, 2005.
- Daily maximum limitation of 3.0 ml/L on July 16, 2009.

Ammonia as N- Daily maximum limitation of 34 mg/L on November 29, 2006.

Acute toxicity - Daily maximum acute toxicity limitation of 2.8 on March 12, 2008. An acute topsmelt toxicity test conducted on a 24-hour composite sample collected on March 12, 2008 resulted in an exceedance of the effluent limitation in Order No. R4-2005-0020. This triggered the initiation of accelerated testing, a requirement of Order No. R4-2005-0020. The Discharger conducted all six additional tests, which were in compliance with the toxicity limitation. The Discharger has since resumed regular monthly testing.

Sanitary Sewer Overflows (SSO) and Spills
The Discharger has reported a number of spills and/or overflows in the HTP service area over the years. City of Los Angeles reported that, between January 2007 and April 2010, there was a total of 557 SSOs and spills in the Hyperion Service Area (totaling 524,450 gallons of spill, of which 183,847 gallons were recovered). Only one SSO incident, estimated at 1,700 gallons, was related to wet weather. Appropriate enforcement is being evaluated by the Regional Water Board and USEPA.

Discharge to Discharge Point 001
During the planned maintenance of the one-mile gates, secondary treated effluent was discharged through the Discharge Point 001 (one-mile outfall), on the following dates: July 21, 2005, August 29, 2005, May 2 & 24, 2007, February 12, 2008, May 21, 2008, August 20, 2008, January 13, 2009, April 28, 2009. In addition, from November 28- 30, 2006, during a planned mainenance inspection of Discharge Point 002 (five-mile outfall), secondary treated effluent was discharged through the Outfall Discharge Point 001. The Discharger conducted the necessary notifications to the Regional Water Board and USEPA, appropriate sampling and monitoring was conducted as required by the Order No. R4-2005-0020.

E. Discharge Plume

The City has conducted offshore water quality monitoring in Santa Monica Bay since 1987.

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The movement of the Hyperion Treatment Plant's wastewater plume is dictated by the depth of the thermocline or stratification and the direction and strength of highly variable currents in Santa Monica Bay. Under typical conditions, the plume is detected within 2 km (6562 ft) of the outfall terminus of Discharge Point 002, although it has been detected as far as 8 km (26247 ft) away from the outfall. Also, the plume has almost always been detected below the thermocline at a depth ranging from 10 m (33 ft) to 55 m (180 ft). Infrequently, during winter storm conditions, the plume has been detected at the surface in the vicinity of the outfall. On rare occasions, it has been impossible to detect the plume.

As the waters of Santa Monica Bay approach the shore, the thermocline intersects the rising sea bottom. This point is typically 1000 m (3281 ft) or more offshore and is the theoretical limit of the approach of the plume to the shoreline. The plume has never been detected less than 2.5 km (8202 ft) from shore, at the 45 m (148 ft) depth contour.

The City has conducted shoreline and nearshore/inshore water quality monitoring in Santa Monica Bay since the late 1940s. The monitoring results indicated that effluent from the five-mile outfall does not reach the shoreline and that elevated bacterial counts are associated with runoff from storm drains and discharges from piers. The direct impacts of the discharge from the one-mile outfall on shoreline water quality have not been studied due to the lack of routine discharge. However, it is expected to be minimal because effluent discharged from the one-mile outfall is disinfected and the volume of the discharge is usually less than five million gallons, occurring at most once per quarter. This discharge is intended for conducting a functional test of equipment.

Shoreline monitoring requirements have been transferred to the monitoring program of the municipal storm water for the City (Order No. 01-182, NPDES No. CAS004001) adopted by this Regional Water Board on December 13, 2001.

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F. **Receiving Water Description**

The receiving water into which Hyperion Treatment Plant discharges is part of the Santa Monica Bay watershed. The watershed is home to unique wetland, sand dune, and open ocean ecosystems that support a rich diversity of wildlife and serve as migration stopovers for marine mammals and birds. The Bay and its beaches are invaluable recreational resources and important sources of revenue for the region. The Bay is heavily used for fishing, swimming, surfing, diving, and other activities classified as water contact and noncontact recreation.

Over the years, the beneficial uses of the Bay have been impaired to various degrees due to pollution, resource over-exploitation, and habitat destruction. The primary problems of concern include acute health risk associated with swimming in runoff-contaminated surfzone waters, chronic (cancer) risk associated with consumption of certain sport fish species in areas impacted by DDT and PCB

contamination, pollutant loading from point sources, urban runoff, and other nonpoint sources in light of projected population increases and their impacts on marine ecosystem, health of fishery resources, and degradation of natural habitats, and population decline of key species. (Santa Monica Bay Restoration Commission. 2004. "State of the Bay: 2004 Progress and Challenges", 45 pages; Santa Monica Bay Restoration Project. 1998. "Taking the Pulse of the Bay - State of the Bay 1998").

Section 403 of the Clean Water Act (CWA) requires dischargers to comply with specific Ocean Discharge Criteria established to address impacts on marine resources, including fisheries and endangered species. The City of Los Angeles submitted a report on May 29, 2003, to demonstrate compliance with the section 403 Ocean Discharge Criteria. Based upon an evaluation of previous receiving water monitoring data and reports from other agencies, the City concluded that no unreasonable degradation of the marine environment is occurring with the current discharge receiving full secondary treatment and compliance with applicable water quality standards achieved.

G. **Planned Changes**

The Discharger has no significant planned changes.

IV. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order/Permit are based on the requirements and authorities described in this section.

A. Legal Authorities.

This Order/Permit is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC) (commencing with Section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order/Permit also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, Chapter 4, Division 7 of the California Water Code (commencing with Section 13260). Although Discharge Point 002 is beyond the limit of State-regulated ocean waters, effluent plume migration into State waters warrants joint regulation of the discharge by USEPA and the Regional Water Board.

B. California Environmental Quality Act (CEQA)

Under California Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA (Public Resources Code sections 21100 through 21177).

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C. State and Federal Regulations, Policies, and Plans

1. **Los Angeles Water Quality Control Plan.** On June 13, 1994, the Regional Water Board adopted a water quality control plan for the Los Angeles Region (hereinafter Basin Plan) as amended that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63 which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Basin Plan beneficial uses applicable to the Pacific Ocean are as follows:

Table 4. Basin Plan Beneficial Uses of the Applicable Receiving Waters

Discharge Point	Receiving Water	Beneficial Use(s)
001, 002	Dockweiler Beach (Hydrologic Unit 405.12)	Existing: Industrial service supply (IND), navigation (NAV), water contact recreation (REC-1), non-contact water recreation (REC-2), commercial and sport fishing (COMM), marine habitat (MAR), and wildlife habitat (WILD). Potential: Spawning, reproduction, and/or early development (SPWN)*.
	Pacific Ocean Nearshore**Zone	Existing: IND, NAV, REC-1, REC-2, COMM, MAR, WILD, preservation of biological habitats** (BIOL), RARE**, migration of aquatic organisms** (MIGR), SPWN**, and SHELL. Potential: None.
	Pacific Ocean Offshore Zone	Existing: IND, NAV, REC-1, REC-2, COMM, MAR, WILD, RARE**, MIGR**, SPWN**, and SHELL. Potential: None.

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Requirements of this Order/Permit implement the Basin Plan. The Basin Plan relies primarily on the requirements of *the Water Quality Control Plan for Ocean Waters of California* (Ocean Plan) for protection of the beneficial uses of the State ocean waters. The Basin Plan, however, may contain additional water quality objectives applicable to the Discharger.

2. **California Thermal Plan.** In 1972, the State Water Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (hereinafter Thermal Plan), as amended. This plan contains temperature objectives for coastal and

inland surface waters. Requirements of this Order/Permit implement the Thermal Plan.

3. **California Ocean Plan.** In 1972, the State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (hereinafter Ocean Plan), as amended. The latest amendment became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean waters of the State. Ocean Plan beneficial uses applicable to ocean waters of the State are shown in Table 5.

Table 5. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Use(s)
001, 002	Pacific Ocean	IND, REC-1, REC-2, COMM, NAV, COMM, mariculture, preservation and enhancement of designated Area of Special Bioloigical Significance (ASBS), RARE, MAR, MIGR, SPWN, and SHELL.

To protect the beneficial uses in ocean water, the Ocean Plan establishes water quality objectives and a program implementation. Requirements of this Order/Permit implement the Ocean Plan.

4. **Santa Monica Bay Restoration Plan**. The Hyperion Treatment Plant discharges to Santa Monica Bay, one of the most heavily used recreational areas in California. Recognizing the importance of the Bay as a national resource, the State of California and USEPA nominated and Congress included Santa Monica Bay in the National Estuary Program. This led to the formation of the Santa Monica Bay Restoration Project (currently named Santa Monica Bay Restoration Commission) that developed the Bay Restoration Plan (BRP) which serves as a blueprint for restoring and enhancing the Bay. The Regional Water Board plays a lead role in the implementation of the BRP. Three of the proposed priorities of the BRP are reduction of pollutants of concern at the source (including municipal wastewater treatment plants), attainment of full secondary treatment at the City of Los Angeles' Hyperion Treatment Plant and the County Sanitation Districts of Los Angeles County's Joint Water Pollution Control Plant, and implementation of the mass emission approach for discharges of pollutants to the Bay.

5. **Alaska Rule.** USEPA has revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for CWA purposes (40 CFR part 131.21; 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (hereinafter Alaska rule), new and revised standards submitted to USEPA after May 30, 2000 must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

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6. **Stringency of Requirements for Individual Pollutants.** This Order/Permit contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based effluent limitations and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on biochemical oxygen demand (5-day) (BOD_5), total suspended solids (TSS), and pH, and percent removal of BOD_5 and TSS, which implement the minimum, applicable federal technology-based requirements for POTWs. Also, effluent limitations consisting of restrictions on oil and grease, settleable solids, and turbidity more stringent than federal technology-based requirements are necessary to implement State treatment standards in Table A of the Ocean Plan. Water quality-based effluent limitations consisting of restricts on total chlorine residual, ammonia (expressed as nitrogen), acute toxicity, chronic toxicity, radioactivity, benzidine, hexachlorobenzene, PCBs, and toxaphene have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. Collectively, restrictions on individual pollutants in this Order/Permit are no more stringent than required by the CWA.

7. **Antidegradation Policy.** Title 40 of the Code of Federal Regulations[1] Part 131.12 requires that the State water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. This resolution incorporates the federal antidegradation policy, where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in detail in the Fact Sheet (Attachment F), the permitted discharge is consistent with the antidegradation provisions of 40 CFR part 131.12 and State Water Board Resolution No. 68-16.

8. **Anti-Backsliding Requirements.** CWA sections 402(o)/303(d) and 40 CFR part 122.44(l) prohibit backsliding and require effluent limitations, permit conditions, and standards in a reissued NPDES permit to be as stringent as those in the previous permit, with some exceptions where limitations and conditions may be relaxed. Some effluent limitations in this Order/Permit are less stringent that those in the previous Order/Permit. As discussed in detail in the Fact Sheet (Attachment F), this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

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[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated and will be abbreviated as "40 CFR part number.

This Order/Permit is consistent with State and federal antidegradation policies in that it does not authorize a change in pollutant mass emission rates, nor does it authorize a relaxation in the manner of treatment of the discharge. Pollutant limit mass emission rates continue to be based on the design flow rate of the treatment plant under the 1994 permit of 420 mgd. Although the design flow rate of the treatment plant has increased to 450 mgd, this increase has been accompanied by a significant improvement in the level of treatment necessary to achieve full secondary treatment. As a result, both the quantity of discharged pollutants and quality of the discharge are expected to remain relatively constant or improve during this permit term, consistent with antidegradation policies. In conformance with reasonable potential analysis procedures identified in State Board and USEPA documents, effluent limitations for some constituents are not carried forward in this Order/Permit because there is not presently reasonable potential for the constituents to cause or contribute to an exceedance of water quality standards. Without reasonable potential, there is no longer a need to maintain prior WQBELs under NPDES regulations, antibacksliding provisions, and antidegradation policies. The accompanying monitoring and reporting program requires continued data collection and if monitoring data show reasonable potential for a constituent to cause or contribute to an exceedance of water quality standards, the Order/Permit will be reopened to incorporate WQBELs. Such an approach ensures that the discharge will adequately protect water quality standards for designated beneficial uses and conform with antidegradation policies and antibacksliding provisions.

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9. **Endangered Species Act.** This Order/Permit does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C. sections 1531 to 1544). This Order/Permit requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the State. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act

11. **Monitoring and Reporting Requirements.** 40 CFR part 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. California Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (Attachment E) establishes monitoring and reporting requirements to implement federal and State requirements.

12. **Federal Permit Renewal Contingency.** The Discharger's federal permit renewal is contingent upon determination by the U.S. Fish and Wildlife Service and NOAA National Marine Fisheries Service that the proposed discharge is consistent with

the: (1) federal Endangered Species Act; (2) Magnuson-Stevens Fishery Conservation and Management Act (MSA); and (3) the Regional Water Board's certification/concurrence that the discharge will comply with applicable State water quality standards.

USEPA's reissuance of NPDES permit No. CA0109991 to the City of Los Angeles for Hyperion Treatment Plant is subject to requirements of MSA and ESA. In May 2010, USEPA requested updated information related to: (1) essential fish habitat and managed and associated species, and (2) threatened and endangered species and their designated critical habitats, in the vicinity of the Hyperion outfalls from the National Marine Fisheries Service and the U.S. Fish and Wildlife Service (collectively, the Services). Based on this and other relevant information, USEPA is currently evaluating whether there are effects on essential fish habitat and managed and associated species protected under the MSA, or on threatened and endangered species and their designated critical habitats protected under the ESA. Based on the outcome of this analysis, USEPA may engage in consultation with the Services during, and subsequent to, this permit reissuance. USEPA may decide that changes to this permit are warranted based on the results of the completed consultation, and a reopenener provision to this effect has been included in the Order/Permit.

Joint issuance of an NPDES permit which incorporates both federal requirements and State waste discharge requirements will serve as the State's concurrence that the discharge complied with State water quality standards. The California Coastal Commission has indicated that it is not necessary to obtain a consistency certification pursuant to the Coastal Zone Management Act for the issuance of a federal NPDES permit containing secondary treatment standards.

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D. Impaired Water Bodies on CWA 303(d) List

On June 28, 2007, the USEPA approved the State's 2006 303(d) List of Water Quality Limited Segments (hereinafter 303(d) list). The 303(d) list identifies waterbodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations by point sources (water quality limited waterbodies).

Santa Monica Bay (Offshore and Nearshore) is on the 303(d) list for the following pollutants/stressors from point and non-point sources: DDT (tissue & sediment, centered on Palos Verdes Shelf), PCBs (tissue & sediment), sediment toxicity, debris, and fish consumption advisory. Santa Monica Bay Beaches Total maximum daily loads (TMDLs) for DDT, PCBs, sediment toxicity, and fish consumption advisory have not been scheduled. A TMDL for Santa Monica Bay Nearshore Debris TMDL is under development. Santa Monica Bay Beaches Bacteria TMDLs were approved by USEPA in 2003, as described in the following section.

E. Other Plans, Polices and Regulations

1. **Secondary Treatment Regulations.** 40 CFR part 133 establishes the minimum levels of effluent quality to be achieved by secondary treatment at publicly owned treatment works. These technology-based effluent limitations, established by USEPA, are incorporated into this Order/Permit except where more stringent limitations are required by other applicable plans, policies, or regulations.

2. **Storm Water.** See Factsheet page F-12.

3. **Sanitary Sewer Overflows.** The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (General Order) on May 2, 2006. The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions. Furthermore, the General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating SSOs. The requirements contained in this Order/Permit are generally consistent with the requirements in the SSO WDR. The Discharger's collection system is part of the POTW that is subject to this Order/Permit. The Discharger must comply with both the General Order and this Order/Permit.

4. **Pretreatment.** Section 402 of the CWA and implementing regulations at 40 CFR 403 establish pretreatment requirements for POTWs which receive pollutants from non-domestic users. This Order/Permit contains pretreatment program requirements pursuant to 40 CFR 403 that are applicable to the Discharger.

5. **Sewage Sludge/Biosolids Requirements.** Section 405 of the CWA and implementing regulations at 40 CFR 503 require that producers of sewage sludge/biosolids meet certain reporting, handling, and use or disposal requirements. The State has not been delegated the authority to implement this program; therefore, USEPA is the implementing agency. This Order/Permit contains sewage sludge/biosolids requirements pursuant to 40 CFR 503 that are applicable to the Discharger.

6. **Watershed Management.** This Regional Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in Los Angeles and Ventura Counties. The approach is in accordance with USEPA guidance on *Watershed Protection: A Project Focus* (EPA 841-R-95-003, August 1995). The objective is to provide a comprehensive and integrated strategy resulting in water resource protection, enhancement and restoration,

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while balancing economic and environmental impacts within a hydrologically defined drainage basin or watershed. The Management Approach 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/Permit and the accompanying *Monitoring and Reporting Program* (Attachment E) fosters implementation of this approach. The *Monitoring and Reporting Program* requires the Discharger to participate in regional water quality and kelp bed monitoring programs in the Southern California Bight.

7. **Santa Monica Bay Beaches Bacteria Total Maximum Daily Loads (TMDLs).** The Regional Water Board has adopted two TMDLs to reduce bacteria at Santa Monica Bay beaches during dry and wet weather. The Regional Water Board adopted the Dry Weather and Wet Weather TMDLs on January 24, 2002 and December 12, 2002, respectively (Resolution Nos. 2002-004 and 2002-022). These TMDLs were approved by the State Water Board, State OAL and USEPA Region 9 and became effective on July 15, 2003. Since their approval, these TMDLs have been incorporated into the Los Angeles County Municipal Storm Water NPDES Permit (hereinafter, the LA MS4 Permit) (CAS004001, Order No. 01-182), as receiving water limitations.

   In these TMDLs, waste load allocations (WLAs) are expressed as the number of sample days at a shoreline monitoring site that may exceed the single sample targets for total coliform, fecal coliform and enterococcus identified under “Numeric Target” in the TMDLs. Waste load allocations are expressed as allowable exceedance days because the bacterial density and frequency of single sample exceedances are the most relevant to public health protection at beaches. The final shoreline compliance point for the WLAs in the TMDLs is the wave wash where there is a freshwater outlet (i.e., publicly owned storm drain or natural creek) to the beach, or at ankle depth at beaches without a freshwater outlet.

   The City of Los Angeles, as the owner of Hyperion Treatment Plant, is identified as a responsible jurisdiction in these TMDLs. In these TMDLs, Hyperion Treatment Plant is assigned a WLA of zero days of exceedance of the single sample bacterial objectives during all three identified periods – summer dry weather, winter dry weather and wet weather. Hyperion Treatment Plant's WLA of zero exceedance days requires that no discharge from its outfalls may cause or contribute to any exceedances of the single sample bacteria objectives at the shoreline compliance points identified in the TMDL and subsequently approved Coordinated Shoreline Monitoring Plan (dated April 7, 2004) submitted by responsible agencies and jurisdictions under the TMDLs. The shoreline monitoring data collected as part of the Los Angeles County MS4 Permit will be used to demonstrate compliance with the WLAs in these TMDLs.

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V. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR part 122.44(a) requires that permits include applicable technology-based limitations and standards, and 40 CFR part 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or an indicator parameter may be established.

A. Discharge Prohibitions

Discharge prohibitions in this Order/Permit are based on the requirements in section III.H of the Ocean Plan (2005).

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing regulations at 40 CFR part 125.3, require that NPDES permits include limitations which meet applicable technology-based requirements, at a minimum. The discharge authorized by this Order/Permit must meet minimum federal technology-based requirements for POTWs at 40 CFR 133 and other technology requirements based on Best Professional Judgment (BPJ) in accordance with 40 CFR part 125.3. A detailed discussion of technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

2. Applicable Technology-Based Effluent Limitations

Pursuant to sections 301(b)(1)(B) and 304(d) of the CWA, USEPA has established standards of performance for secondary treatment at 40 CFR 133. Secondary treatment is defined in terms of three parameters– 5-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH. The following summarizes the technology-based requirements for secondary treatment, which are applicable to the Facility:

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Table 6. Summary of Technology-based Effluent Limitations for Secondary Treatment Facility by USEPA at 40 CFR part 133.102

Constituent	Average Monthly	Average Weekly	Percent Removal
BOD_5	30 mg/L	45 mg/L	85%
TSS	30 mg/L	45 mg/L	85%
pH	6.0 to 9.0 pH units		

Also, Table A of the Ocean Plan establishes the following technology-based effluent limitations, which are applicable to the Facility:

Table 7. Summary of Technology-based Effluent Limitations for POTWs established by the Ocean Plan (2005)

Constituent	Average Monthly	Average Weekly	Instantaneous Maximum	Percent Removal
Oil & Grease	25 mg/L	40 mg/L	75 mg/L	--
TSS	--	--	--	75%[2]
Settleable Solids	1.0 ml/L	1.5 ml/L	3.0 ml/L	--
Turbidity	75 NTU	100 NTU	225 NTU	--
pH	6.0 to 9.0 pH units			

All technology-based effluent limitations from Order No. R4-2005-0020 for BOD_5, TSS, oil and grease, settleable solids, pH, and turbidity are retained in this Order/Permit with minor changes for oil and grease, settleable solids, and turbidity, as described below. Limitations for BOD_5, TSS, and pH are based on secondary treatment standards established by the USEPA at 40 CFR 133. Limitations for oil and grease, settleable solids, and turbidity are based on requirements in the 2005 Ocean Plan. To be consistent with the Ocean Plan, daily maximum limitations for these three constituents in the existing permit are prescribed as instantaneous maximum limitations in this Order/Permit. All technology-based effluent limitations are not dependent upon the dilution ratio for the discharge outfall. In addition to the concentration-based effluent limitations, mass-based effluent limitations based on the average design flow rate of 420 million gallons per day for the Hyperion Treatment Plant in the 1994 permit are also included.

The following table summarizes the technology-based effluent limitations for the discharge from the Facility:

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[2] Dischargers shall, as a 30-day average, remove 75% of TSS from the influent stream before discharging wastewaters to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L.

Table 8. Summary of Technology-based Effluent Limitations- Discharge Points 001 and 002

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
$BOD_5 20^0C$	mg/L	30	45	--	--	--
	lbs/day[3]	113,000	169,000	--	--	--
	% removal	85	--	--	--	--
Total Suspended Solids (TSS)	mg/L	30	45	--	--	--
	lbs/day[5]	113,000	169,000	--	--	--
	% removal	85	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75
	lbs/day[5]	93,800	150,000	--	--	281,000
Settleable Solids	mL/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	--	225
pH	pH unit	--	--	--	6.0	9.0

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C. Water Quality-Based Effluent Limits (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 40 CFR part 122.44(d) require that permits include limitations more stringent than applicable technology-based requirements where necessary to achieve water quality standards and State requirements. 40 CFR part 122.44(d)(1)(i) requires that permits include water quality-based effluent limitations (WQBELs) for all pollutants which are or may be discharged at levels having the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives or criteria within a standard. USEPA has applied CWA section 403(c) and 40 CFR 125, Subpart M, following 40 CFR 122.

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other State plans and policies, or any applicable water quality criteria contained in the Ocean Plan.

[3] The mass emission rates are based on the average design flow rate (420 MGD) of the Hyperion Treatment Plant in the 1994 permit: lbs/day = 0.00834 x Ce (effluent concentration, ug/L) x Q (flow rate, MGD). During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan and Ocean Plan establish the beneficial uses for ocean waters of the State. The beneficial uses of the receiving waters affected by the discharge have been described previously in this Fact Sheet. The Ocean Plan contains water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. The Basin Plan contains the bacteria objectives for water bodies designated for water contact recreation as amended by Resolution No. 01-018. Bacteria objectives from the Ocean Plan and Basin Plan were included as receiving water limitations in this Order/Permit.

Table B of the Ocean Plan includes numerical water quality objectives for toxic pollutants.

a. 6-month median, daily maximum, and instantaneous maximum objectives for 21 chemicals and chemical characteristics, including total residual chlorine, and acute and chronic toxicity, for the protection of marine aquatic life.

b. 30-day average objectives for 20 non-carcinogenic chemicals for the protection of human health.

c. 30-day average objectives for 42 carcinogenic chemicals for the protection of human health.

3. Expression of WQBELs

Pursuant to 40 CFR part 122.45(d)(2), for POTW continuous discharges, all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall, unless impracticable, be stated as average weekly and average monthly discharge limitations. It is impracticable to include only average weekly and average monthly effluent limitations in the Order/Permit because a single daily discharge of certain pollutants, in excess amounts, can cause violations of water quality objectives. The effects of pollutants on aquatic organisms are often rapid. For many pollutants, an average weekly or average monthly effluent limitation alone is not sufficiently protective of beneficial uses. As a result, maximum daily effluent limitations, as referenced in 40 CFR part 122.45(d), are included in the Order/Permit for certain constituents.

The WQBELs for marine aquatic life toxics contained in this Order/Permit are based on Table B water quality objectives contained in the 2005 Ocean Plan that are expressed as six-month median, daily maximum, and instantaneous maximum water quality objectives. However, in the existing Order/Permit (Order No. R4-2005-0020), the calculated effluent limitations based on 6-month

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median objectives for marine aquatic life toxics in the 2001 Ocean Plan were prescribed as monthly average limitations. Applying the antibacksliding regulations, this Order/Permit retains the same approach and sets effluent limitations derived from six-month median water quality objectives for marine aquatic life toxics in the 2005 Ocean Plan as monthly average limitations. To be consistent with the Ocean Plan, daily maximum and instantaneous maximum limitations are prescribed in this Order/Permit.

4. Determining the Need for WQBELs

Order No. R4-2005-0020 contains effluent limitations for non-conventional and toxic pollutant parameters in Table B of the Ocean Plan. For this Order/Permit, the need for effluent limitations based on water quality objectives in Table B of the 2005 Ocean Plan was reevaluated in accordance with the Reasonable Potential Analysis (RPA) procedures contained in Appendix VI of the 2005 Ocean Plan. This statistical RPA method (RPcalc version 2.0) accounts for the averaging period of the water quality objective, accounts for and captures the long-term variability of the pollutant in the effluent, accounts for limitations associated with sparse data sets, accounts for uncertainty associated with censored data sets, and assumes a lognormal distribution of the facility-specific effluent data. The program calculates the upper confidence bound (UCB) of an effluent population percentile after complete mixing. In the evaluation employed in this Order/Permit, the UCB is calculated as the one-sided, upper 95 percent confidence bound for the 95th percentile of the effluent distribution after complete mixing. The calculated $UCB_{95/95}$ is then compared to the appropriate objective to determine the potential for an exceedance of that objective and the need for an effluent limitation. For constituents that have an insufficient number of monitoring data or a substantial number of non-detected data with a reporting limit higher than the respective water quality objective, the RPA result is likely to be inconclusive. As suggested by the Ocean Plan, existing effluent limitations for these constituents are retained in the new Order/Permit. For Discharge Point 001, these include beryllium, chlordane, DDT, PAH, PCBs, and TCDD. For Discharge Point 002, these include chlordane, DDT, PCBs, and TCDD. In addition, the MRP (Attachment E) of this Order/Permit also requires the Discharger to continue to monitor for these constituents.

Using this statistical procedure, in combination with effluent data provided by the Discharger from July 2005 to July 2009, and minimum initial dilution ratios of 13:1 for Discharge Point 001 and 84:1 for Discharge Point 002, Regional Water Board staff and USEPA have determined that the following constituents, when discharged through the specified outfall, either have reasonable potential to exceed Ocean Plan objectives, or have inconclusive results after performing the RPA, and therefore, require effluent limitations.

<u>Discharge Point 001</u>

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Ammonia, copper, chronic toxicity, chlorine residual, benzidine, beryllium, chlordane, DDT, PAHs, PCBs, and TCDD.

Discharge Point 002
Acute toxicity, chronic toxicity, chlordane, DDT, PCBs, and TCDD.

Additional analysis for chlordane
Chlordane, an organochlorine insecticide, was widely used in agricultural on field crops such as corn and citrus fruits, and in urban settings to control termites in houses and for home and garden use, until it was banned in 1988. Technical chlordane is not a single chemical but a mixture of pure chlordane with more than 140 other related compounds. Chlordane is extremely persistent in the environment. Sources include contaminated building materials from termiticide application, soils to which chlordane was historically applied, and hazardous waste sites. It may be found in urban runoff and sewage sludge. Adsorption to sediments and volatilization are important removal mechanisms in water. Chlordane has low water solubility and can be found in sediments, food crops, and fish and animal tissue. The ultimate fate of chlordane in oceans is in the bottom sediment. It is known to bioaccumulate in marine organisms.

Chlordane	Effluent Concentration (ug/L)	Calculated Effluent Limitation (ug/L)
Outfall 002	<0.002 - <0.09	0.001955
Outfall 001	<0.002 - <0.09	0.000322

The effluent detection limit for chlordane ranged from <0.002 ug/L to <0.09 ug/L. For Discharge Point 002, the calculated effluent limitation for chlordane is 0.001955 ug/L. For Discharge Point 001, the calculated effluent limitation for chlordane is 0.000322 ug/L.

Recent reported effluent detection limits for chlordane are too high to establish that the Hyperion Treatment Plant discharge will not exceed applicable Ocean Plan objectives following initial dilution of the effluent. The Discharger reports that chlordane and its breakdown products are detected <13 percent of the time in sediments and/or fish tissue samples within the vicinity of the discharge. The Discharger provides minimal discussion related to these sediment and tissue concentrations and how these data relate to threshold levels used by NOAA, FDA, USEPA and California to establish adverse or significant biological effects or human health problems based on sediment and fish tissue levels. Although the Discharger asserts that “potential problems associated with chlordane are diminishing, if not gone”, there is a current 303(d) listings for chlordane in sediments in the vicinity of the discharge with potential sources given as both nonpoint and point sources. During the Order/Permit term, total chlordane measurements in fish from the vicinity of the discharge have periodically exceeded California’s Maximum Tissue Residual Level for fish tissue. As

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described in this Fact Sheet, the Order/Permit does not propose new WQBELs for chlordane, but carries forward mass emission and concentration WQBELs contained in the 1994 permit until the TMDL for chlordane (sediments) is completed in the future. Based on the information described above and because chlordane is known to occur in municipal effluents, sewage sludge and urban runoff, a conservative reasonable potential decision is warranted. Consequently, to ensure water quality protection as a result of Hyperion Treatment Plant discharges, the Final Order/Permit continues forward mass emission and concentration WQBELs for chlordane contained in the 2005 permit.

In general, for constituents that have been determined to have no reasonable potential to cause, or contribute to, excursions of water quality objectives, no numerical limits are prescribed; instead a narrative statement to comply with all Ocean Plan requirements is provided and the Discharger is required to monitor for these constituents to gather data for use in RPAs for future Order/Permit renewals and/or updates.

4. 303(d) Listed Constituents and Discharge Limitations- DDT and PCBs

At various locations in Santa Monica Bay, DDT, and PCBs are found in sediments at levels that can be harmful to marine organisms. In addition, DDT and PCBs are found in certain Bay-captured seafood species at levels posing potential health risks to humans. A brief description of these pollutants and their occurrence in Santa Monica Bay is given below.

In the U.S., DDT, an organochlorine insecticide, was widely used in agricultural and urban settings until they were banned in 1973. PCBs, a large group of industrial and commercial chemicals, were widely used as coolants and lubricants in transformers, capacitors and other electronic equipment until the late 1970s when their manufacture was banned. Because of their stable properties, DDT and PCBs persist in the environment, the result of historical uses which no longer occur. They have low water solubility and are generally found in sediments and fish tissue.

Bight '98 surveys included efforts to assess the spatial extent of anthropogenic contaminant accumulation in benthic sediments and their effects on marine biota in the Southern California Bight. These surveys showed that while elevated levels of DDT and PCBs continue to be measured in sediments near Hyperion Treatment Plant's 5-mile outfall, much of this is reflective of historical deposition and not the levels of contaminants associated with recent discharges. These surveys also concluded that DDT and PCBs in sediments are a dominant source of contaminant exposure levels in bottom living fish. DDT continues to be found in fish tissue at levels of concern throughout the Bight, although these levels are declining over time. Monitoring data show that

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effluent levels of DDT and PCBs discharged from the 5-mile outfall remain at non-detect concentrations.

Nearshore and offshore waters of Santa Monica Bay are on California's 2006 CWA 303(d) list of water quality limited segments for DDT (sediment and tissue, centered on Palos Verdes Shelf) and PCBs (sediment and tissue). TMDLs for DDT and PCBs have not been scheduled. As TMDLs for these two constituents have not been completed, the Order/Permit continues forward mass emission and concentration WQBELs contained in the 2005 Order/Permit. These limits are based on Ocean Plan water quality objectives and effluent limitation calculation procedures, and, for Discharge Point 002, the average design flow rate (420 MGD) of the Hyperion Treatment Plant in 1994. Current performance for DDT and PCBs in the Hyperion Treatment Plant effluent are set at non-detect concentrations. The RPA results for DDT and PCBs are inconclusive.

DDT	Effluent Concentration (ug/L)	Effluent Limitation carried over from R4-2005-0020 (ug/L)
Outfall 002	<0.002 - <0.006	0.014
Outfall 001	<0.002 - <0.006	0.0024
PCBs	Effluent Concentration (ug/L)	R4-2005-0020 Effluent Limitation carried over (ug/L)
Outfall 002	<0.07 - <0.49	0.002
Outfall 001	<0.002 - <0.09	0.002

5. WQBEL Calculations

From the Table B water quality objectives in the Ocean Plan, effluent limitations are calculated according to the following equation for all pollutants, except for acute toxicity (if applicable) and radioactivity:

$$C_e = C_o + D_m(C_o - C_s)$$

where

C_e = the effluent limitation (μg/L)
C_o = the water quality objective to be met at the completion of initial dilution (μg/L)
C_s = background seawater concentration (μg/L) (see Table below)
D_m = minimum probable initial dilution expressed as parts seawater per part wastewater

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The Dm is based on observed waste flow characteristics, receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure. In this Order/Permit, dilution ratios of 84:1 and 13:1 have been applied to Discharge Points 002 and 001, respectively.

Initial dilution is the process that 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 and industrial 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. As site-specific water quality data is not available, in accordance with Table B implementing procedures, Cs equals zero for all pollutants, except the following:

Table 9. Pollutants with Background Seawater Concentrations

Constituent	Background Seawater Concentration (C_s)
Arsenic	3 µg/L
Copper	2 µg/L
Mercury	0.0005 µg/L
Silver	0.16 µg/L
Zinc	8 µg/L

The calculation of WQBELs for copper and ammonia are demonstrated below for Discharge Point 001, as examples:

Table 10. Ocean Plan Water Quality Objectives (C_o) for Copper and Ammonia

Constituents	6-Month Median	Daily Maximum	Instantaneous Maximum	30 Day Average
Copper	3 µg/L	12 µg/L	30 µg/L	--
Ammonia	0.60 mg/L	2.4 mg/L	6 mg/L	--

Using the equation, $\mathbf{C_e=C_o+D_m(C_o-C_s)}$, effluent limitations are calculated as follows before rounding to two significant digits. All calculations are based on discharge through Discharge Point 001 and, therefore, a dilution ratio (D_m) of 13:1 is applied.

Copper

C_e = 3 + 13(3-2) = 16 µg/L (prescribed as Average Monthly, see section 3 above)

C_e = 12 + 13(12-2) = 142 µg/L (rounded to 140 µg/L prescribed as Daily Maximum)

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C_e = 30 + 13(30-2) = 394 µg/L (However, this Order/Permit maintains the effluent limitation of 160 µg/L from Order No. R4-2005-0020, per the anti-backsliding requirements; 160 µg/L is prescribed as Instantaneous Maximum.)

Ammonia
C_e = 0.6 +13(0.6) = 8.4 mg/L (prescribed as Average Monthly, see section 3 above)
C_e = 2.4 + 13(2.4) = 33.6 mg/L (rounded to 34 mg/L – prescribed as Daily Maximum)
C_e = 6.0 + 13(6.0) = 84.0 mg/L (rounded to 84 mg/L – prescribed as Instantaneous Maximum)

Based on the implementing procedures described above, effluent limitations have been calculated for all Table B pollutants (excluding acute toxicity, chronic toxicity, and radioactivity) from the Ocean Plan and incorporated into this Order/Permit when applicable.

Determination of radioactivity limitation: Since the descriptive water quality objective for radioactivity in the 2005 California Ocean Plan fails to establish applicable narrative or numerical effluent limitations for radionuclides, Regional Water Board staff used BPJ to establish radioactivity limitations for the effluent using Maximum Contaminant Levels (MCLs) for the drinking water specified in Title 22, California Code of Regulations because it is the only scientifically-based regulatory criteria available.

6. Whole Effluent Toxicity (WET)

The Order/Permit (Order No. R4-2005-0020) includes water quality-based effluent limitations for acute toxicity and chronic toxicity for Discharge Point 002 and for chronic toxicity for Discharge Point 001. While the 2005 Ocean Plan specifies that discharges with dilution ratios below 100:1 must conduct chronic toxicity testing, it does not preclude permitting authorities implementing 40 CFR 122.44(d)(1) from establishing acute toxicity testing requirements, including effluent limitations, to ensure protection of the acute toxicity objective. Because ammonia and marine acute toxicity effluent quality data for POTW ocean discharges having dilution ratios greater than 84:1 periodically show acute toxicity related to effluent ammonia concentrations and the current operation of the Hyperion Treatment Plant does not effectively remove ammonia, the Regional Water Board and USEPA have determined that the Hyperion discharge has reasonable potential to exceed the current Ocean Plan objective for acute toxicity. Consequently, the Order/Permit contains a daily maximum acute toxicity effluent limitation for Discharge Point 002 and testing protocols consistent with the 2005 Ocean Plan.

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Using the objective of 0.3 TUa for the daily maximum and 10% of the dilution ratio (as the acute toxicity mixing zone), the daily maximum acute toxicity limit for Discharge Point 002 is calculated as follows:

$$C_e = C_a + (0.1)\ D_m\ (C_a)$$

where

C_e = the effluent daily maximum limit for acute toxicity

C_a = the concentration (water quality objective) to be met at the edge of the acute mixing zone

D_m = minimum probable initial dilution expressed as parts seawater per part wastewater (84:1 and 13:1 for Outfall Nos. 002 and 001, respectively) (This equation applies only when $D_m > 24$.)

$$C_e = 0.3 + (0.1)(84)(0.3) = 2.8\ TU_a$$

Since the above equation for calculating acute toxicity limitation applies only when Dm > 24, this Order/Permit does not contain an acute toxicity limitation for Discharge Point 001 although RP is present. However, USEPA and Regional Water Board staff consider that the issue of acute toxicity issue would be adequately addressed by controlling ammonia, for which this Order/Permit contains an effluent limitation. Ammonia is considered the primary probable cause of acute toxicity in treated wastewater from POTWs.

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D. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

All effluent limitations in this Order/Permit are at least as stringent as the effluent limitations in the previous Order/Permit. The effluent limitations of the following marine aquatic life toxicants, non-carcinogenic and carcinogenic human health toxicants have been deleted because they did not show reasonable potential to cause or contribute to an excursion above the respective water quality standards for: (1) Discharge Point 002- tributyltin and PAHs; and (2) Discharge Point 001- cyanide, phenolic compounds (chlorinated), HCH, 2,4-dinitrophenol, tributyltin, acrylonitrile, bis(2-chloroethyl)ether, bis(2-ethylhexyl)phthalate, n-nitrosodi-n-propylamine, tetrachloroethylene, and 2,4,6-trichlorophenol. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations. The results of reasonable potential analyses for beryllium, chlordane, DDT, PAHs, PCBs, and TCDDs were inconclusive, therefore, for the purpose of satisfying anti-backsliding requirements, the effluent limitations for these pollutants in Order R4-2005-0020 are carried over.

2. Satisfaction of Antidegradation Policy

On October 28, 1968, the State Water Board adopted Resolution No. 68-16, *Maintaining High Quality Water*, which established an antidegradation policy for State and Regional Water Boards. The State Water Board has, in State Water Board Order No. 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy. Similarly, CWA sections 402(o)/303(d)(4) and USEPA regulations at 40 CFR part 131.12 require that all permitting actions be consistent with the federal antidegradation policy. Together, the State and federal policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge. The provisions of this Order/Permit are consistent with the antidegradation policies.

3. Stringency of Requirements for Individual Pollutants

This Order/Permit contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD_5, TSS, and pH. Restrictions on BOD_5, TSS, and pH are discussed in section IV.B.2 of this Fact Sheet. This Order/Permit's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating individual water quality-based effluent limitations for priority pollutants are based on the 2005 Ocean Plan, which was approved by USEPA on February 14, 2006. All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and approved by USEPA. Collectively, this Order/Permit's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA and applicable water quality standards.

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Table 11. Summary of Final Effluent Limitations Discharge Point 002

Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
BOD_5 20°C[6]	mg/L	30	45	--	--	--	Existing/ Secondary treatment standard
	lbs/day	113,000	169,000	--	--		
	% removal	85	--	--	--		
Total Suspended Solids (TSS)[6]	mg/L	30	45	--	--	--	Existing/ Secondary treatment standard
	lbs/day	113,000	169,000	--	--		
	% removal	85	--	--	--		

Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
pH[5, 6, 7]	pH unit	6.0 (instantaneous minimum) – 9.0 (instantaneous maxium)				--	Existing/ Secondary treatment standard/Ocean Plan
Oil and Grease[7]	mg/L	25	40	--	75	--	Existing/ Carry-over; Ocean Plan
	lbs/day	93,800	150,000	--	--		Existing/ Ocean Plan
Settleable Solids[7]	ml/L	1.0	1.5	--	3.0	--	Existing/ Carry-over; Ocean Plan
Turbidity[7]	NTU	75	100	--	225	--	Existing/ Carry-over; Ocean Plan
Marine Aquatic Life Toxicants[8]							Existing/ Ocean Plan
Arsenic [9]	µg/L	--	--	--	--	3.5	No RP[10]
Cadmium[9]	µg/L	--	--	--	--	2.0	No RP[10]
Chromium (VI) [9]	µg/L	--	--	--	--	0.50	No RP[10]
Copper[9]	µg/L	--	--	--	--	25	No RP[10]
Lead[9]	µg/L	--	--	--	--	10	No RP[10]
Mercury[9]	µg/L	--	--	--	--	0.02	No RP[10]
Nickel[9]	µg/L	--	--	--	--	3	No RP[10]
Selenium[9]	µg/L	--	--	--	--	1.6	No RP[10]
Silver[9]	µg/L	--	--	--	--	2.2	No RP[10]
Zinc[9]	µg/L	--	--	--	--	20	No RP[10]
Cyanide	µg/L	--	--	--	--	0.005	No RP[10]
Chlorine Residual	mg/L	--	--	--	--	--	No RP[10]
Ammonia as N	mg/L	--	--	--	--	42	No RP[10]
Phenolic compounds (non-chlorinated)	µg/L	--	--	--	--	2.0	No RP[10]
Phenolic compounds (chlorinated)	µg/L	--	--	--	--	2.0	No RP[10]
Endosulfan	µg/L	--	--	--	--	0.04	No RP[10]
HCH	µg/L	--	--	--	--	0.015	No RP[10]

Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
Endrin	µg/L	--	--	--	--	0.025	No RP[10]
Acute toxicity	Tua	--	--	2.8	--	--	RP; Existing; Carry-over; Ocean Plan[4]
Chronic toxicity	Tuc	--	--	84	--	--	RP; Existing/ Carry-over; Ocean Plan[5]
Radioactivity							
Gross alpha	PCi/L	--	--	15	--	--	BPJ[11]
Gross beta	PCi/L	--	--	50	--	--	BPJ[11]
Combined Radium-226 & Radium-228	PCi/L	--	--	5.0	--	--	BPJ[11]
Tritium	PCi/L	--	--	20,000	--	--	BPJ[11]
Strontium-90	PCi/L	--	--	8.0	--	--	BPJ[11]
Uranium	PCi/L	--	--	20	--	--	BPJ[11]
Human Health Toxicants – Non Carcinogens[8]							
Acrolein	µg/L	--	--	--	--	20	No RP[10]
Antimony[9]	µg/L	--	--	--	--	1.5	No RP[10]
Bis(2-chloroethoxy) methane	µg/L	--	--	--	--	0.5	No RP[10]
Bis(2-chloroisopropyl) ether	µg/L	--	--	--	--	0.5	No RP[10]
Chlorobenzene	µg/L	--	--	--	--	0.6	No RP[10]
Chromium (III)[8]	µg/L	--	--	--	--	1	No RP[10]
Di-n-butyl-phthalate	µg/L	--	--	--	--	5	No RP[10]
Dichlorobenzenes[3]	µg/L	--	--	--	--	0.6	No RP[10]
Diethyl phthalate	µg/L	--	--	--	--	0.6	No RP[10]
Dimethyl phthalate	µg/L	--	--	--	--	2.7	No RP[10]
2-Methyl-4,6-dinitrophenol	µg/L	--	--	--	--	4	No RP[10]
2,4-Dinitrophenol	µg/L	--	--	--	--	2.1	No RP[10]
Ethyl benzene	µg/L	--	--	--	--	0.8	No RP[10]
Fluoranthene	µg/L	--	--	--	--	0.2	No RP[10]
Hexachlorocyclopentadiene	µg/L	--	--	--	--	29	No RP[10]
Nitrobenzene	µg/L	--	--	--	--	0.5	No RP[10]
Thallium[9]	µg/L	--	--	--	--	0.1	No RP[10]
Toluene	µg/L	--	--	--	--	0.6	No RP[10]

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Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
Tributyltin	µg/L	--	--	--	--	0.020	No RP[10]
1,1,1-Trichloroethane	µg/L	--	--	--	--	0.5	No RP[10]
Human Health Toxicants – Carcinogens[8]							
Acrylonitrile	µg/L	--	--	--	--	0.4	No RP[10]
Aldrin	µg/L	--	--	--	--	0.0019	No RP[10]
Benzene	µg/L	--	--	--	--	0.35	No RP[10]
Benzidine	µg/L	--	--	--	--	0.0059	No RP[10]
Beryllium[8]	µg/L	--	--	--	--	1	No RP[10]
Bis(2-chloroethyl) ether	µg/L	--	--	--	--	0.45	No RP[10]
Bis(2-ethylhexyl) phthalate	µg/L	--	--	--	--	5	No RP[10]
Carbon tetrachloride	µg/L	--	--	--	--	0.45	No RP[10]
Chlordane	µg/L	0.0019	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day	0.0067	--	--	--	--	
Chlorodibromomethane	µg/L	--	--	--	--	0.25	No RP[10]
Chloroform	µg/L	--	--	--	--	8.7	No RP[10]
DDT[3]	µg/L	0.014	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day	0.049	--	--	--	--	
1,4-Dichlorobenzene	µg/L	--	--	--	--	2.0	No RP[10]
3,3'-Dichlorobenzidine	µg/L	--	--	--	--	0.55	No RP[10]
1,2-Dichloroethane	µg/L	--	--	--	--	0.5	No RP[10]
1,1-Dichloroethylene	µg/L	--	--	--	--	0.6	No RP[10]
Bromodichloromethane	µg/L	--	--	--	--	0.3	No RP[10]
Dichloromethane[3]	µg/L	--	--	--	--	6.5	No RP[10]
1,3-Dichloropropene	µg/L	--	--	--	--	0.45	No RP[10]
Dieldrin	µg/L	--	--	--	--	0.0034	No RP[10]
2,4-Dinitrotoluene	µg/L	--	--	--	--	0.4	No RP[10]
1,2-Diphenylhydrazine	µg/L	--	--	--	--	0.3	No RP[10]
Halomethanes[3]	µg/L	--	--	--	--	1.05	No RP[10]
Heptachlor	µg/L	--	--	--	--	0.0043	No RP[10]
Heptachlor epoxide[10]	µg/L		--	--	--	0.0017	Existing/ Carry-over; Ocean Plan
Hexachlorobenzene	µg/L	--	--	--	--	0.018	No RP[10]
Hexachlorobutadiene	µg/L	--	--	--	--	0.35	No RP[10]
Hexachloroethane	µg/L	--	--	--	--	0.35	No RP[10]
Isophorone	µg/L	--	--	--	--	0.35	No RP[10]

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Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
N-Nitrosodimethylamine	µg/L	--	--	--	--	0.85	No RP[10]
N-Nitrosodi-N-propylamine	µg/L	--	--	--	--	0.65	No RP[10]
N-Nitrosodiphenylamine	µg/L	--	--	--	--	0.45	No RP[10]
PAHs[3]	µg/L	--	--	--	--	0.70	No RP[10]
PCBs[3]	µg/L	0.0020	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day	0.0070	--	--	--	--	
TCDD equivalents[3]	pg/L	0.33	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day	1.2xE-6	--	--	--	--	
1,1,2,2-Tetrachloroethane	µg/L	--	--	--	--	0.55	No RP[10]
Tetrachloroethylene	µg/L	--	--	--	--	0.5	No RP[10]
Toxaphene	µg/L	--	--	--	--	0.018	No RP[10]
Trichloroethylene	µg/L	--	--	--	--	0.4	No RP[10]
1,1,2-Trichloroethane	µg/L	--	--	--	--	0.25	No RP[10]
2,4,6-Trichlorophenol	µg/L	--	--	--	--	0.45	No RP[10]
Vinyl chloride	µg/L	--	--	--	--	0.35	No RP[10]

Table 12. Summary of Final Effluent Limitations Discharge Point 001[11]

Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
$BOD_5$20°C[6]	mg/L	30	45	--	--	--	Existing; Carry-over; Secondary treatment standard
	lbs/day	113,000	169,000	--	--		
	% removal	85	--	--	--		
Total Suspended Solids (TSS)[6]	mg/L	30	45	--	--	--	Existing; Carry-over; Secondary treatment standard
	lbs/day	113,000	169,000	--	--		
	% removal	85	--	--	--		
pH[5, 6, 7]	pH unit	6.0 (instantaneous miniumu) – 9.0 (instantaneous maxium)				--	Existing; Carry-over; Ocean Plan
Oil and Grease[7]	mg/L	25	40	--	75	--	Existing; Carry-over; Ocean Plan
	lbs/day	93,800	150,000	--	--		
Settleable Solids[7]	ml/L	1.0	1.5	--	3.0	--	Existing; Carry-over; Ocean Plan

Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
Turbidity[7]	NTU	75	100	--	225	--	Existing; Carry-over; Ocean Plan
Marine Aquatic Life Toxicants[8]							
Arsenic[9]	µg/L	--	--	--	--	3.5	No RP[10]
Cadmium[9]	µg/L	--	--	--	--	2.0	No RP[10]
	lbs/day	--	--	--	--	7.0	
Chromium (VI)[9]	µg/L	--	--	--	--	0.50	No RP[10]
Copper[9]	µg/L	16	--	140	160	--	RP; Existing; Carry-over; Ocean Plan
	lbs/day	56	--	490	560	--	
Lead[9]	µg/L	--	--	--	--	10	No RP[10]
Mercury[9]	µg/L	--	--	--	--	0.02	No RP[10]
Nickel[9]	µg/L	--	--	--	--	3	No RP[10]
Selenium[9]	µg/L	--	--	--	--	1.6	No RP[10]
Silver[9]	µg/L	--	--	--	--	2.2	No RP[10]
Zinc[9]	µg/L	--	--	--	--	20	No RP[10]
Cyanide	µg/L	--	--	--	--	0.005	No RP[10]
Chlorine Residual	µg/L	28	--	92	840	300	No RP[10]
	lbs/day	98	--	320	2900	1100	
Ammonia as N	mg/L	8.4	--	34	84	42	RP; Existing; Carry-over; Ocean Plan
	lbs/day	29,000	--	120,000	290,000	150,000	
Phenolic compounds (non-chlorinated)	µg/L	--	--	--	--	2	No RP[10]
Phenolic compounds (chlorinated)	µg/L	--	--	--	--	2	No RP[10]
Endosulfan	µg/L	--	--	--	--	0.04	No RP[10]
HCH	µg/L	--	--	--	--	0.015	No RP[10]
Endrin	µg/L	--	--	--	--	0.025	No RP[10]
Acute toxicity	Tua	--	--		--	--	BPJ
Chronic toxicity	Tuc	--	--	13	--	--	RP; Existing Carry-over; Ocean Plan[4]
Radioactivity							
Gross alpha	PCi/L	--	--	15	--	--	BPJ[11]
Gross beta	PCi/L	--	--	50	--	--	BPJ[11]
Combined Radium-226 & Radium-228	PCi/L	--	--	5.0	--	--	BPJ[11]
Tritium	PCi/L	--	--	20,000	--	--	BPJ[11]

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Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
Strontium-90	PCi/L	--	--	8.0	--	--	BPJ[11]
Uranium	PCi/L	--	--	20	--	--	BPJ[11]
Human Health Toxicants – Non Carcinogens							
Acrolein	µg/L	--	--	--	--	20	No RP[10]
Antimony[9]	µg/L	--	--	--	--	1.5	No RP[10]
Bis(2-chloroethoxy) methane	µg/L	--	--	--	--	0.5	No RP[10]
Bis(2-chloroisopropyl) ether	µg/L	--	--	--	--	0.5	No RP[10]
Chlorobenzene	µg/L	--	--	--	--	0.6	No RP[10]
Chromium (III)[9]	µg/L	--	--	--	--	1	No RP[10]
Di-n-butyl-phthalate	µg/L	--	--	--	--	5	No RP[10]
Dichlorobenzenes[3]	µg/L	--	--	--	--	0.6	No RP[10]
Diethyl phthalate	µg/L	--	--	--	--	0.6	No RP[10]
Dimethyl phthalate	µg/L	--	--	--	--	2.7	No RP[10]
2-Methyl-4,6-dinitrophenol	µg/L	--	--	--	--	4	No RP[10]
2,4-Dinitrophenol	µg/L	--	--	--	--	2.1	No RP[10]
Ethyl benzene	µg/L	--	--	--	--	0.8	No RP[10]
Fluoranthene	µg/L	--	--	--	--	0.2	No RP[10]
Hexachlorocyclopentadiene	µg/L	--	--	--	--	29	No RP[10]
Nitrobenzene	µg/L	--	--	--	--	0.5	No RP[10]
Thallium[9]	µg/L	--	--	--	--	0.1	No RP[10]
Toluene	µg/L	--	--	--	--	0.6	No RP[10]
Tributyltin	µg/L	--	--	--	--	0.020	No RP[10]
1,1,1-Trichloroethane	µg/L	--	--	--	--	0.5	No RP[10]
Human Health Toxicants – Carcinogens							
Acrylonitrile	µg/L	--	--	--	--	0.4	No RP[10]
Aldrin	µg/L	--	--	--	--	0.00031	No RP[10]
Benzene	µg/L	--	--	--	--	0.35	No RP[10]
Benzidine	µg/L	--	--	--	--	0.00097	No RP[10]
Beryllium[8]	µg/L	0.46	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day	1.6	--	--	--	--	
Bis(2-chloroethyl) ether	µg/L	--	--	--	--	0.45	No RP[10]
Bis(2-ethylhexyl) phthalate	µg/L	--	--	--	--	5	No RP[10]

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Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
Carbon tetrachloride	µg/L	--	--	--	--	0.45	No RP[10]
Chlordane	µg/L	0.0003	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day	0.0011	--	--	--	--	
Chlorodibromomethane	µg/L	--	--	--	--	0.25	No RP[10]
Chloroform	µg/L	--	--	--	--	8.7	No RP[10]
DDT	µg/L	0.0024	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day	0.0084	--	--	--	--	
1,4-Dichlorobenzene	µg/L	--	--	--	--	2.0	No RP[10]
3,3'-Dichlorobenzidine	µg/L	--	--	--	--	0.11	No RP[10]
1,2-Dichloroethane	µg/L	--	--	--	--	0.5	No RP[10]
1,1-Dichloroethylene	µg/L	--	--	--	--	0.6	No RP[10]
Bromodichloromethane	µg/L	--	--	--	--	0.3	No RP[10]
Dichloromethane	µg/L	--	--	--	--	6.5	No RP[10]
1,3-Dichloropropene	µg/L	--	--	--	--	0.45	No RP[10]
Dieldrin	µg/L	--	--	--	--	0.00056	No RP[10]
2,4-Dinitrotoluene	µg/L	--	--	--	--	0.4	No RP[10]
1,2-Diphenylhydrazine	µg/L	--	--	--	--	0.3	No RP[10]
Halomethanes[3]	µg/L	--	--	--	--	1.05	No RP[10]
Heptachlor	µg/L	--	--	--	--	0.0007	No RP[10]
Heptachlor epoxide[10]	µg/L		--	--	--	0.00028	No RP[10]
Hexachlorobenzene	µg/L	--	--	--	--	0.0029	No RP[10]
Hexachlorobutadiene	µg/L	--	--	--	--	0.35	No RP[10]
Hexachloroethane	µg/L	--	--	--	--	0.35	No RP[10]
Isophorone	µg/L	--	--	--	--	0.35	No RP[10]
N-Nitrosodimethylamine	µg/L	--	--	--	--	0.85	No RP[10]
N-Nitrosodi-N-propylamine	µg/L	--	--	--	--	0.65	No RP[10]
N-Nitrosodiphenylamine	µg/L	--	--	--	--	0.45	No RP[10]
PAHs[3]	µg/L	0.12	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day[6]	0.43	--	--	--	--	
PCBs[3]	µg/L	0.00030	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day[6]	0.0084	--	--	--		
TCDD equivalents[3]	pg/L	0.055	--	--	--	--	Existing/ Carry-over; Ocean Plan
	lbs/day[6]	1.93xE-7	--	--	--	--	
1,1,2,2-Tetrachloroethane	µg/L	--	--	--	--	0.55	No RP[10]

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Parameter	Units	Effluent Limitations[1]				Performance Goal[2]	Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3]	Instantaneous Maximum[3,5]		
Tetrachloroethylene	µg/L	--	--	--	--	0.5	No RP[10]
Toxaphene	µg/L	--	--	--	--	0.0029	No RP[10]
Trichloroethylene	µg/L	--	--	--	--	0.4	No RP[10]
1,1,2-Trichloroethane	µg/L	--	--	--	--	0.25	No RP[10]
2,4,6-Trichlorophenol	µg/L	--	--	--	--	0.45	No RP[10]
Vinyl chloride	µg/L	--	--	--	--	0.35	No RP[10]

Footnotes:

[1] Effluent limitations for conventional, nonconventional, and toxic pollutants were calculated based on effluent limitations in *Table A* and water quality objectives in *Table B* of the Ocean Plan. The minimum dilution ratios used to calculate effluent limitations for nonconventional and toxic pollutants based on water quality objectives in *Table B* of the Ocean Plan are 84:1 (i.e., 84 parts seawater to one part effluent) and 13:1 for Discharge Points 002 and 001, respectively. Effluent limitations for radioactivity are not dependent on minimum ratios. The calculations of mass emission rates are shown in the accompanying Fact Sheet.

The mass emission rates are based on the average design flow rate (420 MGD) of the Hyperion Treatment Plant in the 1994 permit: lbs/day = 0.00834 x Ce (effluent concentration in ug/L) x Q (flow rate in MGD). During storm events when flow exceeds the dry weather design capacity, the mass emission rate limitations shall not apply.

[2] The performance goals are based upon the actual performance data of Hyperion Treatment Plant and are specified only as an indication of the treatment efficiency of the plant. They are not considered effluent limitations or standards for the treatment plant. Hyperion Treatment Plant shall make best efforts to maintain, if not improve, the effluent quality at the level of these performance goals. The Executive Officer and USEPA may modify any of the performance goals if the City requests and has demonstrated that the change is warranted.

[3] See section VII of this Order and Attachment A for definition of terms.

[4] The maximum daily effluent concentration limitation shall apply to flow-weighted 24-hour composite samples. It may apply to grab samples if the collection of composite samples for those constituents is not appropriate because of the instability of the constituents.

[5] The instantaneous maximum effluent limitations shall apply to grab sample results.

[6] The effluent limitations are based on secondary treatment standards, 40 CFR 133.102.

[7] Based on Ocean Plan Table A effluent limitations.

[8] Effluent limitations for these constituents are based on Ocean Plan Table B objectives using initial dilution ratios of 84 and 13 parts of seawater to 1 part effluent for Discharge Points 002 and 001, respectively.

[9] Represents total recoverable metal value.

[10] These constituents did not show reasonable potential to exceed Ocean Plan Table B objectives; therefore, no numerical water quality-based effluent limits are prescribed.

[11] See "determination of radioactivity limitation" in section IV.C.5 of Fact Sheet.

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VI. PERFORMANCE GOALS

Chapter III, section F.2, of the 2005 Ocean Plan allows the Regional Water Board to establish more restrictive water quality objectives and effluent limitations than those set forth in the Ocean Plan as necessary for the protection of the beneficial uses of ocean waters.

Pursuant to this provision and to implement the recommendation of the Water Quality Advisory Task Force (*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)* that was adopted by the Regional Water Board on November 1, 1993, performance goals that are more stringent than those based on Ocean Plan objectives are prescribed in this Order/Permit. This approach is consistent with the antidegradation policy in that it requires the Discharger to maintain its treatment level and effluent quality, recognizing normal variations in treatment efficiency and sampling and analytical techniques. However, this approach does not address substantial changes in treatment plant operations that could significantly affect the quality of the treated effluent.

While performance goals were previously placed in many POTW permits in the Region, they have not been continued for discharges that are to inland surface waters. For inland surface waters, the California Toxics Rule (40 CFR part 131.38) has resulted in effluent limitations as stringent as many performance goals. However, the Ocean Plan allows for significant dilution, and the continued use of performance goals serves to maintain existing treatment levels and effluent quality and supports State and federal antidegradation policies.

The performance goals are based upon the actual performance of the Hyperion Treatment Plant and are specified only as an indication of the treatment efficiency of the Facility. Performance goals are intended to minimize pollutant loading (primarily for toxics), while maintaining the incentive for future voluntary improvement of water quality whenever feasible, without the imposition of more stringent limits based on improved performance. They are not considered enforceable limitations or standards for the regulation of the discharge from the treatment facility. The Executive Officer may modify any of the performance goals if the Discharger requests and has demonstrated that the change is warranted.

Procedures for the determination of performance goals

1. For constituents that have been routinely detected in the effluent (at least 20 percent detectable data), performance goals are based on the one-sided, upper 95 percent confidence bound ($UCB_{95/95}$) of the 95th percentile of July 2005 through July 2009 performance data using the RPA protocol contained in the

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2005 Ocean Plan. Effluent data are assumed lognormally distributed. Performance goals are calculated according to the equation C_{PG} = Co+Dm(Co-Cs) in the Ocean Plan and by setting Co=$UCB_{95/95}$.

a. If the maximum detected effluent concentration is greater than the calculated performance goal, the calculated performance goal is used as the performance goal; or

b. If the maximum detected effluent concentration is less than the calculated performance goal, the maximum detected effluent concentration is used as the performance goal.

2. For constituents where monitoring data have consistently shown nondetectable levels (less than 20 percent detectable data), performance goals are set at five times the Method Detection Limit reported in the 2008 Annual Report. However, if the maximum detected effluent concentration is less than the calculated value based on MDL, the maximum detected effluent concentration is used as the performance goal.

3. For constituents with no effluent limitations, if the performance goal derived from above steps exceeds the respective calculated Ocean Plan effluent limitation, the calculated effluent limitation is then prescribed as the performance goal for that constituent.

4. For constituents with effluent limitations, if the performance goal derived from above steps exceeds respective effluent limitation, then performance goal is not prescribed for that constituent.

The performance goals for Discharge Points 001 and 002 are prescribed in this Order/Permit. The listed performance goals are not enforceable effluent limitations or standards. The Discharger shall maintain, if not improve, its treatment efficiency. Any exceedance of the performance goals shall trigger an investigation into the cause of the exceedance. If the exceedance persists in three successive monitoring periods, the Discharger shall submit a written report to the Regional Water Board and USEPA on the nature of the exceedance, the results of the investigation as to the cause of the exceedance, and the corrective actions taken or proposed corrective measures with timetable for implementation, if necessary.

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VII. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Ocean Plan and Basin Plan contain numeric and narrative water quality standards applicable to surface waters within the Los Angeles Region. Water quality objectives include a policy to maintain the high quality waters pursuant to federal regulations (40 CFR part 131.12) and State Water Board Resolution No. 68-16.

Receiving water limitations in the Order/Permit are included to ensure protection of beneficial uses of the receiving water.

VIII. MASS EMISSION CAPS

Mass emission caps are applied to four pollutants of concern identified in the SMBRP (copper, lead, silver, and zinc) that are causing or could cause deterioration of designated beneficial uses in the Santa Monica Bay. Caps are set at 1995 allowable emission rates. The Discharger should make best efforts to discharge these pollutants of concern below cap values. The Executive Officer and USEPA may modify any of the mass emission cap values, if the Discharger requests and demonstrates that the change is warranted.

The mass emission caps are based on 1995 average flow rate of 347 mgd and the 1995 average concentration of the pollutant of concern. If performance data showed nondetectable levels, one half of the detection limit was used to calculate an average concentration. Mass emission caps calculations are shown below.

Parameter	Mass Emission CAP, lbs/year
Copper	41,100
Lead	2,700
Silver	5,500
Zinc	59,100

Mass Emission Cap Calculation:

1995 average flow: 347 mgd

Monthly Monitoring Results in 1995

		Constituent			
Month	**Unit**	**Copper**	**Lead***	**Silver**	**Zinc**
Jan	ug/L	35	<3	4.2	45
Feb	ug/L	46	<6	6	62
Mar	ug/L	33	<3	6	40
Apr	ug/L	30	<3	1.2	34
May	ug/L	36	<3	7	51
Jun	ug/L	45	3	6.7	77
Jul	ug/L	39	<3	8.9	45
Aug	ug/L	38	10	5.5	53
Sep	ug/L	46	3	3.4	57
Oct	ug/L	42	<3	2.6	60
Nov	ug/L	43	<3	7.2	54
Dec	ug/L	34	<3	3.9	94
Average	ug/L	39	2.6	5.2	56

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		Constituent			
Month	Unit	Copper	Lead*	Silver	Zinc
Mass Emission Cap **	Lbs/yr	41181	2745	5491	59132

* One half of the detection limit is used in the calculation.
** Mass Emission Cap is based on the 1995 flow rate of 347 mgd.

Example of calculation for copper:
39 ug/L x 1 g/1,000000 ug x 347,000,000 gals/day x 3.785L/gal x lb/454 g x 365 days/year = 41,181 lbs/year

IX. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR part 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. California Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order/Permit, establishes monitoring and reporting requirements to implement federal and State requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

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A. Influent Monitoring

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.
- Assess effectiveness of the Pretreatment Program.

Influent monitoring in this Order/Permit follows the influent monitoring requirements in the previous Order/Permit with minor changes. The monitoring frequencies for some parameters have been increased due to RP for those parameters.

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit limitations and conditions. Monitoring requirements are specified in the Monitoring and Reporting Program (Attachment E). This Order/Permit requires compliance with the Monitoring and Reporting Program, and is based on 40 CFR parts 122.48, 122.44(i), and 122.41(j). The Monitoring and Reporting Program is a standard requirement in almost all NPDES permits (including this Order/Permit) issued by the Regional Water Board or USEPA. In addition to

containing definition of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board and USEPA policies. The Monitoring and Reporting Program also contains sampling program specific for the Discharger's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified.

Monitoring for those pollutants expected to be present in the discharge from the facility, will be required as shown on the proposed Monitoring and Reporting Program (Attachment E) and as required in the Ocean Plan.

C. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water. Requirements are based on the Ocean Plan and Basin Plan. The conceptual framework for the receiving water program has three components that comprise a range of spatial and temporal scales: (a) core monitoring; (b) regional monitoring; and (c) special studies.

a. Core monitoring is local in nature and focused on monitoring trends in quality and effects of the point source discharge. This includes effluent monitoring as well as many aspects of receiving water monitoring. In the monitoring program described below these core components are typically referred to as local monitoring.

b. Regional monitoring is focused on questions that are best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. The major objective of regional monitoring is to collect information required to assess 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. Key components of regional monitoring include elements to address pollutant mass emission estimations, public health concerns, monitoring of trends in natural resources, assessment of regional impacts from all contaminant sources, and protection of beneficial uses. The final design of regional monitoring programs is developed by means of steering committees and technical committees comprised of participating agencies and organizations and is not specified in this Order/Permit. Instead, for each regional component, the degree and nature of participation of the Discharger is specified. For this Order/Permit, these levels of effort are based upon past participation of the Discharger in regional monitoring programs.

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The Discharger shall participate in regional monitoring activities coordinated by the SCCWRP or any other appropriate agency approved by the Regional Water Board and USEPA. The procedures and time lines for the Regional Water Board and USEPA approval shall be the same as detailed for special studies, below.

c. Special studies are focused on refined questions regarding specific effects or development of monitoring techniques and are anticipated to be of short duration and/or small scale, although multiyear studies also may be needed. Questions regarding effluent or receiving water quality, discharge impacts, ocean processes in the area of the discharge, or development of techniques for monitoring the same, arising out of the results of core or regional monitoring, may be pursued through special studies. These studies are by nature ad hoc and cannot be typically anticipated in advance of the five-year permit cycle.

   The Discharger, the Regional Water Board and USEPA shall consult annually to determine the need for special studies. Each year, the Discharger shall submit proposals for any proposed special studies to the Regional Water Board and USEPA by November 1, for the following year's monitoring effort (July through June). The following year, detailed scopes of work for proposals, including reporting schedules, shall be presented by the Discharger at a Spring Regional Water Board meeting, to obtain the Regional Water Board approval and to inform the public. Upon approval by the Regional Water Board and USEPA, the Discharger shall implement its special study or studies. (Note: The CEC special study has a different deadline for submitting a Workplan which is six months from the effective date of the Order/Permit.)

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The receiving water monitoring program contains the following components:

d. Inshore Water Quality Monitoring: The inshore monitoring addresses the question: "Are Ocean Plan and Basin Plan objectives for bacteria being met?" Data collected at inshore stations provide the means to determine whether bacteriological objectives for water contact and shellfish harvesting are being met in the area of greatest potential for water contact and shellfish harvesting activities most proximal to the points of discharge.

e. Offshore Water Quality Monitoring: The offshore monitoring addresses the compliance questions: "Are Ocean Plan and Basin Plan objectives for physical and chemical parameters and bacteria being met?" Water quality data collected provide the information necessary to demonstrate compliance with the water quality standards. In addition, data collected by the City of Los Angeles contribute to the Central Bight Cooperative Water Quality Survey. This regionally coordinated survey provides integrated

water quality surveys on a quarterly basis and covers 200 kilometers of coast in Ventura, Los Angeles, and Orange Counties, from the nearshore to approximately 10 kilometers offshore. This cooperative program contributes to a regional understanding of seasonal patterns in water column structure. The regional view provides context for determining the significance and causes of locally observed patterns in the area of wastewater outfalls.

f. Benthic Sediments Monitoring: The local benthic trends survey addresses the question: "Are benthic conditions under the influence of the discharge changing over time?" The data collected are used for regular assessment of trends in sediment contamination and biological response along a fixed grid of sites within the influence (or historical influence) of the discharge. The resulting physical and chemical data will be used for assessment of trends in sediment contamination and to draw inferences concerning the relationship between effluent-derived alteration of the benthic habitat and patterns in infaunal community structure. In addition, the regional benthic survey addresses the questions: 1) "What is the extent, distribution, magnitude and trend of ecological change in soft-bottom benthic habitats within the Southern California Bight?" and 2) "What is the relationship between biological response and contaminant exposure?" The data collected will be used to assess the condition of the sea-floor environment and the health of the biological resources in the Bight.

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E. Other Monitoring Requirements

1. Outfall and Diffuser Inspection

This survey answers the question: "Are the outfall structures in serviceable condition ensuring their continued safe operation?" The data collected will be used for a periodic assessment of the integrity of the outfall pipes and ballasting system.

2. Biosolids and Sludge Management

This section establishes monitoring and reporting requirements for the storage, handling and disposal practices of biosolids/sludge generated from the operation of this POTW.

X. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR part 122.41, and additional conditions applicable to specified categories of NPDES

permits in accordance with 40 CFR part 122.42, are provided in Attachment D to the Order/Permit. 40 CFR part 122.41(a) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions are incorporated into this Order/Permits expressly.

B. Special Provisions

1. Reopener Provisions

These provisions are based on 40 CFR part 123.25. The Regional Water Board and USEPA may reopen the Order/Permit to modify conditions and requirements. Causes for modifications can include, but are not limited to, the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Ocean Plan and Basin Plan.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

If the discharge consistently exceeds an effluent limitation for toxicity as specified in this Order/Permit, the Discharger shall conduct a TRE as detailed in section V of the MRP (Attachment E). The TRE will help the Discharger identify the possible source(s) of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level.

3. Best Management Practices and Pollution Prevention

a. **Spill Clean-Up Contingency Plan (SCCP)**

Since spills or overflows are a common event in the POTW, this Order/Permit requires the Discharger to review and update, if necessary, SCCP after each incident. The Discharger shall ensure that the up-to-date SCCP is readily available to the sewage system personnel at all times and that the sewage personnel are familiar with it.

b. **Pollutant Minimization Program**

This provision is based on the requirements of section III.C.9 of the Ocean Plan.

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4. Construction, Operation, and Maintenance Specifications

This provision is based on the requirements of 40 CFR 122.41(e) and the previous Order/Permit.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. **Sludge (Biosolids) Requirements.** Section 405 of the CWA and implementing regulations at 40 CFR 503 require that producers of sewage sludge/biosolids meet certain reporting, handling, and use or disposal requirements. The State has not been delegated the authority to implement this program; therefore, USEPA is the implementing agency. This Order/Permit contains sewage sludge/biosolids requirements that are applicable to the Discharger.

b. **Pretreatment Program Requirements.** Section 402 of the CWA and implementing regulations at 40 CFR part 403 establish pretreatment requirements for POTWs which receive pollutants from non-domestic users. This Order/Permit contains pretreatment program requirements that are applicable to the Discharger.

6. **Spill Reporting Requirements.** This Order/Permit established a reporting protocol for how different types of spills, overflow or bypasses of raw or partially treated sewage from the POTW shall be reported to regulatory agencies.

In addition, the State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (General Order) on May 2, 2006. The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions. Furthermore, the General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating SSOs. The Discharger's collection system is part of the POTW that is subject to this Order/Permit. The Discharger must comply with both the General Order and this Order/Permit.

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XI. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) and the U.S. Environmental Protection Agency, Region 9 (USEPA) are considering reissuance of waste discharge requirements (WDR) and a National Pollutant Discharge Elimination System (NPDES) permit for the above-referenced POTW. As an initial step in this process, Regional Board and USEPA staff have developed a tentative

WDR and NPDES permit. The Regional Board and USEPA encourage public participation in this reissuance process.

A. Written Comments

Staff determinations are tentative. Interested persons are invited to submit written comments concerning the tentative WDR and draft NPDES permit. Comments must be submitted either in person or by mail to:

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

Robyn Stuber
U.S. Environmental Protection Agency, Region 9
NPDES Permits Office (WTR-5)
75 Hawthorne Street
San Francisco, CA 94105-3901

To facilitate consideration by the Regional Water Board and USEPA, written comments should be received at Regional Water Board and USEPA offices by June 21, 2010. In addition, written and oral public comments may be submitted until the close of the public hearing at the Regional Water Board's regular Board meeting on July 8 and 9, 2010.

B. Public Hearing

The Regional Water Board and USEPA will hold a joint public hearing on the tentative WDR and NPDES permit during the regular Board meeting on the following date, time, and location:

Date and Time: July 8 at 9:00 a.m. and 9, 2010 at 8:00 a.m.
Location: County Government Center, Board of Supervisors Hearing Room
800 S. Victoria Avenue
Ventura, California

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

The Regional Water Board's web address is www.swrcb.ca.gov/rwqcb4 where interested persons can access the current agenda for changes in Board meeting dates, times and venues.

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C. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, California and 75 Hawthorne Street, San Francisco, California, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged by calling the Los Angeles Regional Water Board at (213) 576-6600 or USEPA at (415) 972-3524.

D. Waste Discharge Requirements Appeals

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

State Water Resources Control Board
Office of Chief Counsel
ATTN: Michael Lauffer
P.O. Box 100, 1001 I Street
Sacramento, CA 95812

E. Federal NPDES Permit Appeals

When a final NPDES permit is issued by USEPA, it will become effective 33 days following the date it is mailed to the Discharger, unless a request for review is filed. If a request for review is filed, only those permit conditions which are uncontested will go into effect pending disposition of the request for review. Requests for review must be filed within 33 days following the date the final permit is mailed and must meet the requirements of 40 CFR part 124.19. All requests for review should be addressed to the Environmental Appeals Board (EAB) as follows. Requests sent through the U.S. Postal Service (except by Express Mail) must be addressed to the EAB's mailing address, which is:

U.S. Environmental Protection Agency
Clerk of the Board
Environmental Appeals Board (MC 1103B)
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460-0001

All filings delivered by hand or courier, including Federal Express, UPS, and U.S. Postal Express Mail, should be directed to the following address:

Environmental Appeals Board
U.S. Environmental Protection Agency

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Colorado Building
1341 G Street, N.W., Suite 600
Washington, D.C. 20460

Those persons filing a request for review must have filed comments on the draft permit, or participated in the public hearing. Otherwise, any such request for review may be filed only to the extent of changes from the draft to the final permit decision.

F. Additional Information

Requests for additional information or questions regarding this Order/Permit should be directed to Ms. Robyn Stuber at stuber.robyn@epa.gov or (415) 972-3524, or Dr. Cathy Chang at cchang@waterboards.ca.gov or (213) 576-6760.

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