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

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**

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# ORDER NO. R4-2012-0026
# NPDES NO. CA0063401

# WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR WEST BASIN MUNICIPAL WATER DISTRICT, EDWARD C. LITTLE WATER RECYCLING PLANT DISCHARGE TO THE PACIFIC OCEAN, VIA THE HYPERION TREATMENT PLANT "FIVE-MILE OUTFALL"

The following Discharger is subject to State waste discharge requirements and federal NPDES permit requirements, as set forth in this Order/Permit:

**Table 1. Discharger Information**

| | |
|---|---|
| **Discharger** | West Basin Municipal Water District[1] |
| **Name of Facility** | Edward C. Little Water Recycling Plant |
| **Facility Address** | 1935 Hughes Way |
| | El Segundo, CA 90245 |
| | Los Angeles County |
| The U.S. Environmental Protection Agency and the Los Angeles Regional Water Quality Control Board have classified this discharge as a major discharge. | |

The discharge by the West Basin Municipal Water District from the discharge points identified below is subject to waste discharge requirements and federal NPDES permit requirements, as set forth in this Order/Permit:

1. The West Basin Municipal Water District is a public agency providing wholesale water, including recycled water and potable water, to local water utility companies, municipalities, and a seawater intrusion prevention barrier project.

**Table 2. Discharge Location**

| Discharge Point | Effluent Description | Discharge Point Latitude | Discharge Point Longitude | Receiving Water |
|---|---|---|---|---|
| Hyperion Treatment Plant pump station[2] | Untreated brine waste (from reverse osmosis treatment) | 33º 55' 31" N | 118º 25' 56" W | Pacific Ocean via Hyperion Treatment Plant secondary-treated effluent |
| 001[3]( = Hyperion Treatment Plant Discharge Point 002) | Untreated brine waste (from reverse osmosis treatment) commingled with Hyperion Treatment Plant secondary-treated effluent | 33º 54' 43" N<br>33º 54' 02" N | 118º 31' 17" W<br>118º 31' 38" W | Pacific Ocean |

**Table 3. Administrative Information for State Order**

| | |
|---|---|
| This Order was adopted by the Los Angeles Regional Water Quality Control Board on: | February 2, 2012 |
| This Order shall become effective on: | March 23, 2012 |
| This Order shall expire on: | January 10, 2017 |
| The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than: | 180 days prior to the Order (40 CFR[4] 122.21(d)) |

I, Samuel Unger, Executive Officer, do hereby certify that this Order/Permit with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on February 2, 2012.

Samuel Unger

Samuel Unger, P.E.
Executive Officer

[2] The Hyperion Treatment Plant pump station is located nearby Vista del Mar Gate B at the Hyperion Treatment Plant.

[3] Discharge Point 001 in Order No. R4-2012-0026 corresponds to Hyperion Treatment Plant Discharge Point 002 ("five-mile outfall") in the Hyperion Treatment Plant Order/Permit (NPDES No. CA0109991), reissued in 2010.

[4] All references are to title 40 of the Code of Federal Regulations (CFR), unless otherwise indicated, and are abbreviated as "40 CFR number" or "40 CFR part number".

**Table 4. Administrative Information for Federal Permit**

| | |
|---|---|
| This Permit was issued by the U.S. Environmental Protection Agency, Region IX on: | FEBRUARY 8, 2012 |
| This Permit shall become effective on: | March 23, 2012 |
| This Permit shall expire on: | January 10, 2017 |
| The Discharger shall submit, in accordance with 40 CFR 122.21(d), a new application at least 180 days before: | 180 days prior to the Permit expiration date (40 CFR 122.21(d)) |

I, Alexis Strauss, Water Division Director, do hereby certify that this Permit with all attachments is a full, true, and correct copy of an NPDES permit issued by the U.S. Environmental Protection Agency, Region IX, on 8 February 2012.

Alexis Strauss, Water Division Director

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## List of Attachments

# I. FACILITY INFORMATION

The following Discharger is subject to State waste discharge requirements and federal NPDES permit requirements, as set forth in this Order/Permit:

**Table 5. Facility Information**

| | |
|---|---|
| **Discharger** | West Basin Municipal Water District |
| **Operator** | United Water |
| **Name of Facility** | Edward C. Little Water Recycling Plant |
| **Facility Address** | 1935 Hughes Way |
| | El Segundo, CA 90245 |
| | Los Angeles County |
| **Facility Contact, Title, and Phone** | Uzi Daniel, Environmental Quality Analyst, (310) 660-6245 |
| **Mailing Address** | 17140 S. Avalon Blvd., Suite 210, Carson, CA 90746 |
| **Type of Facility** | Water Recycling Facility (POTW) |
| **Facility Design Flow** | 5.2 million gallons per day (MGD) of untreated brine waste |

## II. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Water Board) and U.S. Environmental Protection Agency, Region IX (hereinafter USEPA), find:

**A. Background.** Pursuant to Order No. R4-2006-0067 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0063401, the West Basin Municipal Water District (Discharger) is currently discharging up to 4.5[5] MGD (Phase IV) of brine waste via the Hyperion Treatment Plant "five-mile outfall" (Hyperion Treatment Plant Discharge Point 002), which discharges to the Pacific Ocean, a water of the United States. Brine waste is produced from the advanced wastewater treatment facilities located at the Edward C. Little Water Recycling Plant (Plant or Facility). The Discharger submitted a Report of Waste Discharge (ROWD), dated October 12, 2010**,** and applied for an NPDES permit renewal to discharge up to 5.2[6] MGD (Phase V) of brine waste produced at the Facility. Additional ROWD information requested by Regional Water Board staff was received on December 10, 2010. At a site visit conducted on February 23, 2011, Regional Water Board staff discussed ROWD questions with the Discharger, observed operations, and collected additional data in order to develop permit limitations and conditions. The revised ROWD was received on March 24, 2011. The Regional Water Board issued a letter to the Discharger on March 28, 2011, indicating that the application for the NPDES permit renewal and ROWD were complete.

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. Facility Description.** The Facility is owned by the Discharger, operated by the United Water, and located at 1935 Hughes Way, El Segundo, California. Since 1995, the treatment design capacity of the Facility has expanded to four phases. A Phase V expansion project is planned and will be completed in 2012. Currently, the Facility has a treatment design capacity of 61.3 MGD. It provides advanced treatment to a portion of the secondary treated wastewater delivered from the City of Los Angeles' Hyperion Treatment Plant (HTP) for the following maximum productions:

**1.** 40 MGD of Title 22 non-potable water (tertiary treated) for landscape irrigation, agricultural irrigation, and industrial purposes;

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[5] The Discharger began an expansion project at the Facility in September 2005 to increase the amount of recycled water for the West Coast Basin Barrier Project from 7.5 MGD to 12.5 MGD and increase the capacity of the Title 22 process train from 30 MGD to 40 MGD. In a letter dated May 8, 2006, the Discharger requested an increase of flow for the discharge of brine waste from 2.75 MGD to 4.5 MGD to accommodate the expansion.

[6] The Discharger is increasing the amount of recycled water injection for the West Coast Basin Barrier Project from 12.5 MGD to 17.5 MGD and adding capacity for the El Segundo Power Plant with 0.5 MGD of recycled water. To accommodate these increases, the Discharger has requested an increase of flow for the discharge of brine waste from 4.5 MGD to 5.2 MGD.

**2.** 12.5 MGD of barrier injection water (microfiltration, reverse osmosis treated, and advanced oxidation process treated) for the West Coast Basin Barrier Project;

**3.** 4.3 MGD of boiler feed water (microfiltration and reverse osmosis treated) for Chevron, El Segundo Refinery boilers; and

**4.** 4.5 MGD of untreated reverse osmosis brine waste from the advanced treatment process to be discharged into the Pacific Ocean in accordance with this Order/Permit.

The brine waste is discharged to a brine line that leads to the Hyperion Treatment Plant effluent pump station (33º 55' 31" N, 118º 25' 56" W) where it immediately commingles with HTP's secondary-treated effluent and enters HTP's "five-mile outfall". In 2010, annual average effluent flows from HTP were approximately 268 MGD. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

The Discharger maintains a Stormwater Pollution Prevention Program for the Plant, which includes responses to spills, as well as Best Management Practices to prevent spills per NPDES General Permit No. CAS000001, State Water Board Order No. 97-03-DWQ.

**C. Legal Authorities.** This Order/Permit is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the California Water Code (CWC) (commencing with section 13370). This Order shall serve as an NPDES permit for point source discharges from this Facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the CWC (commencing with section 13260). Although Discharge Point 001 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.

**D. Background and Rationale for Requirements**. The Regional Water Board and USEPA developed the requirements in this Order/Permit based on information from the application, monitoring reports, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order/Permit requirements, is hereby incorporated into this Order/Permit and constitutes part of the Findings for this Order/Permit. Attachments A through H are also incorporated into this Order/Permit.

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

**F. Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing regulations at 40 CFR 122.44 require that NPDES permits include conditions meeting applicable technology-based requirements at a minimum, and

any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order/Permit must meet minimum State technology-based requirements based on Ocean Plan Table A Effluent Limitations and Best Professional Judgment (BPJ), in accordance with 40 CFR 125.3. A detailed discussion of technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

**G. Water Quality-Based Effluent Limitations.** Section 301(b) of the CWA and 40 CFR 122.44(d) require that NPDES permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. 40 CFR 122.44(d)(1)(i) mandates that permits include water quality-based effluent limitations (WQBELs) for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR 122.44(d)(1)(vi).

**H. Water Quality Control Plans.** The Regional Water Board has 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 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. Beneficial uses applicable to the Pacific Ocean are as follows:

**Table 6. Basin Plan Beneficial Uses**

| Discharge Point | Receiving Water | Beneficial Use(s) |
|---|---|---|
| 001 (Hyperion Treatment Plant Discharge Point 002) | Pacific Ocean Offshore Zone | Existing:<br>Industrial process water (IND); navigation (NAV); water contact recreation (REC1); non-water contact recreation (REC2); commercial and sport fishing (COMM); marine habitat (MAR); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN); and shellfish harvesting (SHELL).<br>Potential:<br>None. |

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 ocean waters of the State. The Basin Plan, however, may contain additional water quality objectives applicable to the Discharger.

**I. Thermal Plan.** 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) on May 18, 1972, and amended this Plan on September 18, 1975. The Thermal Plan contains temperature objectives for coastal waters. The requirements of this Order/Permit implement the Thermal Plan.

**J. Integrated Report.** The State Water Board proposed the California 2010 Integrated Report from a compilation of draft Regional Water Board 2008 Integrated Reports containing 303(d) Lists of Impaired Waters and 305(b) Reports, following Regional Water Board recommendations and information solicited from the public and other interested parties. On August 4, 2010, the State Water Board adopted California's 2010 Integrated Report. On November 12, 2010, USEPA approved California's 2010 Integrated Report Section 303(d) List of Impaired Waters for the Los Angeles Region. The Santa Monica Bay and nearby locations are on the 303(d) List for the following pollutants:

**1.** Santa Monica Bay Offshore and Nearshore – Calwater Watershed No. 40513000

Pollutants – Dichlorodiphenyltrichloroethane (DDT) (tissue and sediment); debris; fish consumption advisory; polychlorinated biphenyls (PCBs) (tissue and sediment); and sediment toxicity (centered on Palos Verdes Shelf).

**2.** Santa Monica Bay Beaches – Calwater Watershed No. 40513000

Pollutants – Indicator bacteria.

**K. Total Maximum Daily Loads (TMDLs).** A TMDL is a determination of the amount of a pollutant, from point, nonpoint, and natural background sources, including a margin of safety, which may be discharged to a water quality-limited water body. Section 303(d) of the CWA established the TMDL process. The statutory requirements are codified at 40 CFR 130.7. TMDLs must be developed for the pollutants of concern which impact the water quality of water bodies on the 303(d) list.

A 13-year schedule for development of TMDLs in the Los Angeles Region was established in a consent decree approved on March 22, 1999 (Heal the Bay Inc., et al. v. Browner, et al. C 98-4825 SBA) (United States District Court, Northern District of California, 1999). In compliance with the consent decree, a TMDL for bacterial indicators at Santa Monica Bay Beaches became effective on July 15, 2003. A TMDL for debris was adopted by the Regional Water Board on November 4, 2010, and will become effective upon approval by the State Water Board, Office of Administrative Law, and USEPA. TMDLs for listings of DDT, debris, fish

consumption advisory, PCBs, and sediment toxicity for the Santa Monica Bay Offshore and Nearshore are expected to be completed by January 1, 2019.

Applicable waste load allocations specified for each TMDL for the HTP outfalls have been incorporated into HTP's 2010 Order/Permit and do not need to be incorporated into this Order/Permit.

**L. Ocean Plan.** The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (hereinafter Ocean Plan) in 1972. The State Water Board adopted the most recent amended Ocean Plan on September 15, 2009. The Office of Administration Law approved it on March 10, 2010. On October 8, 2010, USEPA approved the 2009 Ocean Plan. The Ocean Plan is applicable, in its entirety, to the ocean waters of the State. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

**Table 7. 2009 Ocean Plan Beneficial Uses**

| Discharge Point | Receiving Water | Beneficial Use(s) |
|---|---|---|
| 001 (Hyperion Treatment Plant Discharge Point 002) | Pacific Ocean | IND; REC1 and REC2 including aesthetic enjoyment; NAV; COMM; mariculture; preservation and enhancement of designated Area of Special Biological Significance (ASBS); RARE; MAR; MIGR; SPWN; and SHELL. |

In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order/Permit implement the Ocean Plan.

**M. Santa Monica Bay Restoration Plan.** The authorized discharge of brine waste is to Santa Monica Bay, one of the most heavily used recreational areas in California. Recognizing the importance of Santa Monica 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 Santa Monica Bay. The Regional Water Board plays a lead role in 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 Santa Monica Bay.

**N. Alaska Rule.** USEPA has revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes (40 CFR 131.21; 65 Fed. Reg. 24641; (April 27, 2000)). Under the revised regulation (also known as the 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 they are approved by USEPA.

**O. 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 total suspended solids (TSS), oil and grease, settleable solids, turbidity, and pH. These technology-based pollutant restrictions implement the minimum, applicable technology-based requirements in Table A of the 2009 Ocean Plan and are discussed in the Fact Sheet.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and water quality objectives contained in the Basin Plan, Ocean Plan, and Thermal Plan have been approved under State law and by USEPA. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's/Permit's restrictions on individual pollutants are no more stringent than required to implement the CWA.

**P. Antidegradation Policy.** 40 CFR 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy and requires that the existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in the Fact Sheet, the permitted discharge is consistent with the antidegradation policy at 40 CFR 131.12 and State Water Board Resolution No. 68-16.

**Q. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Some mass emission effluent limitations in this Order/Permit are less stringent that those in the previous Order/Permit. As discussed in the Fact Sheet this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

**R. Endangered Species Act (ESA).** 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 ESA (Fish and Game Code sections 2050 to 2097) or the federal ESA (16 United States Code

(USC) 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 ESA.

**S. Monitoring and Reporting.** 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

**T. Standard and Special Provisions.** Standard Provisions which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Regional Water Board and USEPA have also included in this Order/Permit special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order/Permit is provided in the attached Fact Sheet.

**U. 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.

**V. Federal Permit Renewal Contingency.** The Discharger's federal NPDES permit renewal is consistent with the: (1) Magnuson-Stevens Fishery Conservation and Management Act (MSA); (2) federal Endangered Species Act (ESA); (3) Coastal Zone Management Act (CZMA); and (4) applicable State water quality standards.

In May 2010, USEPA requested updated information from the NOAA National Marine Fisheries Service and U.S. Fish and Wildlife Service related to essential fish habitat and managed and associated species, and threatened and endangered species and their designated critical habitats, in the vicinity of the Hyperion Treatment Plant outfalls. (USEPA is evaluating whether there are effects from the Hyperion Treatment Plant discharge on habitat or species protected under the MSA or ESA.) The West Basin discharge is less than two percent of the total discharge from the Hyperion Treatment Plant "five-mile outfall". At the critical initial dilution of 84:1 for this outfall, the combined Hyperion Treatment Plant-West Basin effluent discharge shows no chronic toxicity. Based on this information, USEPA has concluded that the West Basin discharge has no effect on species or habitat protected under the MSA or ESA. On July 5, 2010, California Coastal Commission staff communicated to USEPA staff that it is not necessary for USEPA to obtain a consistency certification pursuant to the CZMA for issuance of the federal NPDES permit for the West Basin discharge.

**W. 401 Certification.** The Regional Water Board has determined that its joint issuance of this NPDES permit with USEPA serves as its certification under section 401 of the CWA that any discharge pursuant to this permit will comply with CWA provisions at 33 USC 1311, 1312, 1313, 1316, and 1317.

**X. Notification of Interested Parties.** The Regional Water Board and USEPA have notified the Discharger and interested agencies and persons of their intent to jointly issue Waste Discharge Requirements and a federal NPDES permit for the discharge and have provided an opportunity to submit written comments and recommendations by the close of the Regional Water Board/USEPA joint public hearing during the regularly scheduled Regional Water Board meeting on December 8, 2011. Also, the Regional Water Board and USEPA have provided an opportunity to submit oral comments and recommendations at this joint public hearing. Details of these notifications are provided in the Fact Sheet and the joint public notice for this Order/Permit.

**Y. Consideration of Public Comment.** The Regional Water Board and USEPA have considered all applicable comments pertaining to the discharge.

## III. DISCHARGE PROHIBITIONS

### A. Ocean Plan Discharge Prohibitions

**1.** Discharge of any radiological, chemical or biological warfare agent or high-level radioactive waste into the ocean is prohibited.

**2.** Waste shall not be discharged to designated Areas of Special Biological Significance.

**3.** Pipeline discharge of sludge to the ocean is prohibited by federal law; the discharge of municipal and industrial waste sludge directly to the ocean, or into waste stream that discharges to the ocean is prohibited by the Ocean Plan. Discharge of sludge digester supernatant directly to the ocean, or to a waste stream that discharges to the ocean without further treatment, is prohibited. The treatment, use and disposal of sewage sludge shall be carried out in the manner found to have the least adverse impact on the total natural and human environment.

**4.** The bypassing of untreated wastes containing concentrations of pollutants in excess of those of Table A or Table B of the Ocean Plan to the ocean is prohibited.

**B.** The discharge of waste that is not brine waste is prohibited.

**C.** The discharge of brine waste at any location different from Discharge Point 001 is prohibited and constitutes a violation of this Order/Permit. Waste discharged from Discharge Point 001 shall be limited to a maximum of 5.2 MGD of brine waste. The brine waste discharged through Discharge Point 001 shall be discharged in a

manner that provides sufficient initial dilution to minimize the concentrations of substances not removed in treatment.

**D**. Other than the brine waste discharge authorized by this Order/Permit, the discharge of water, materials, chemicals, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, radiological waste, biological warfare agent, or wastes to the Pacific Ocean, a storm drain system, or other waters of the State are prohibited.

**E**. Neither the treatment nor the discharge of brine waste shall create pollution, contamination, or nuisance as defined by section 13050 of the CWC.

**F**. The discharge of brine waste shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.

**G.** The discharge of brine waste shall not cause a violation of any applicable federal CWA water quality requirement, or water quality standard adopted by the Regional Water Board or State Water Board as required by the CWA and regulations adopted thereunder. If a more stringent applicable water quality standard is promulgated or approved pursuant to CWA section 303 and amendments thereto, the Regional Water Board and USEPA will revise and modify this Order/Permit in accordance with the more stringent standard.

1. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP.

**Table 8. Effluent Limitations**

| Parameter | Units | Effluent Limitations | | | | | |
|---|---|---|---|---|---|---|---|
| | | 6-Month Median[7] | Average Monthly[10] | Average Weekly[10] | Maximum Daily[10] | Instantaneous Minimum[10] | Instantaneous Maximum[10] |
| Oil and Grease | mg/L | -- | 25 | 40 | -- | -- | 75 |
| | lbs/day[8] | -- | 1,080 | 1,730 | -- | -- | 3,250 |
| Total Suspended Solids | mg/L | -- | 60 | -- | -- | -- | -- |
| | lbs/day | -- | 2,600 | -- | -- | -- | -- |
| Settleable Solids | ml/L | -- | 1.0 | 1.5 | -- | -- | 3.0 |
| Turbidity | NTU | -- | 75 | 100 | -- | -- | 225 |
| pH | standard units | -- | -- | -- | -- | 6.0 | 9.0 |
| Temperature | $^{o}$F | -- | -- | -- | 100 | -- | -- |
| Ammonia (as N) | mg/L | 350 | -- | -- | 7,970 | -- | -- |
| | lbs/day | 15,270 | -- | -- | 345,700 | -- | -- |

[7] See Section VII of this Order/Permit for definition.
[8] Based on a maximum flow of 5.2 MGD.

2. Radioactivity: Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the California Code of Regulations. Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.

3. Waste discharged to the ocean must be essentially free of:

   a. Material that is floatable or will become floatable upon discharge.

   b. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.

   c. Substances that will accumulate to toxic levels in marine waters, sediments or biota.

   d. Substances that significantly decrease the natural light to benthic communities and other marine life.

   e. Materials that result in aesthetically undesirable discoloration of the ocean surface.

## IV. RECEIVING WATER LIMITATIONS

The Discharger shall not cause a violation of the following water quality objectives, expressed as receiving water limitations, in representative areas within the waste field where initial dilution is completed.

### A. Bacterial Characteristics

#### 1. Water Contact Standards

a. USEPA Primary Recreation Criteria in Federal Waters

Ocean waters beyond the outer limit of the territorial sea shall not exceed the following 304(a)(1) criteria for *Enterococcus* density beyond the zone of initial dilution in areas where primary contact recreation, as defined in USEPA guidance, occurs. USEPA describes the “primary contact recreation” use as protective when the potential for ingestion of, or immersion in, water is likely. Activities usually include swimming, water-skiing, skin-diving, surfing, and other activities likely to result in immersion (Water Quality Standards Handbook, EPA-823-B-94-005a, 1994, p. 2-2.).

30-day Geometric Mean (per 100 ml): 35.

Single Sample Maximum (per 100 ml): 104 for designated bathing beach; 158 for moderate use; 276 for light use; and 501 for infrequent use.

b. State/Regional Water Board Water Contact Standards

Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Regional Water Board (i.e., waters designated as REC-1), but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column.

30-day Geometric Mean Limits

i. Total coliform density shall not exceed 1,000/100 ml.

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

iii. Enterococcus density shall not exceed 35/100 ml.

Single Sample Maximum (SSM)

i. Total coliform density shall not exceed 10,000/100 ml.

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

iii. Enterococcus density shall not exceed 104/100 ml.

iv. Total coliform density shall not exceed 1,000/100 ml, when the fecal coliform/total coliform ratio exceeds 0.1.

If any of the single sample limits are exceeded, the Regional Water Board may require repeat sampling on a daily basis until the sample falls below the single sample limit in order to determine the persistence of the exceedance. When repeat sampling is required because of an exceedance of any single sample limit, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

c. The Initial Dilution Zone for any wastewater outfall shall be excluded from designation as kelp beds for purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.

d. California Department of Public Health (CDPH) Standards

CDPH has established minimum protective bacteriological standards for coastal waters adjacent to public beaches and for public water contact sports areas in ocean waters. These standards are found in the California Code of Regulations, title 17, section 7958, and they are identical to the objectives contained in subsection b, above. When a public beach or public water contact sports area fails to meet these standards, CDPH or the local public health officer may post with warning signs or otherwise restrict use of the public beach or public water contact sports area until the

standards are met. The CDPH regulations impose more frequent monitoring and more stringent posting and closure requirements on certain high-use public beaches that are located adjacent to a storm drain that flows in the summer.

For beaches not covered under AB 411 regulations (this incorporation by reference is prospective including future changes to the incorporated provisions as changes take effect), CDPH imposes the same standards as contained in title 17, California Code of Regulations and requires weekly sampling but allows the county health officer more discretion in making posting and closure decisions.

**2. Shellfish Harvesting Standards**

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the following bacterial objectives shall be maintained throughout the water column: The median total coliform density shall not exceed 70 per 100 ml; and not more than 10 percent of the samples shall exceed 230 per 100 ml.

## B. Physical Characteristics

The waste discharged shall not:

**1.** Cause floating particulates and oil and grease to be visible;

**2.** Cause aesthetically undesirable discoloration of the ocean surface;

**3.** Significantly reduce the transmittance of natural light at any point outside the initial dilution zone; or

**4.** Change the rate of deposition of inert solids and the characteristics of inert solids in ocean sediments such that benthic communities are degraded.

## C. Chemical Characteristics

The waste discharged shall not:

**1.** Cause the dissolved oxygen concentration at any time to be depressed more than 10 percent from that which occurs naturally, as a result of the discharge of oxygen demanding waste materials;

**2.** Change the pH of the receiving waters at any time more than 0.2 units from that which occurs naturally;

**3.** Cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions;

**4.** Contain individual pesticides or combinations of pesticides in concentrations that adversely affect beneficial uses;

**5.** Cause the concentration of substances set forth in Chapter II, Table B, of the 2009 Ocean Plan, in marine sediments to increase to levels that would degrade indigenous biota;

**6.** Cause the concentration of organic materials in marine sediments to be increased to levels that would degrade marine life;

**7.** Contain nutrients at levels that will cause objectionable aquatic growths or degrade indigenous biota; or

**8.** Cause the numeric water quality objectives established in Chapter II, Table B, of the 2009 Ocean Plan to be exceeded outside of the zone of initial dilution.

### D. Biological Characteristics

The waste discharged shall not:

**1.** Degrade marine communities, including vertebrate, invertebrate, and plant species;

**2.** Alter the natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption; or

**3.** Cause the concentration of organic materials in fish, shellfish or other marine resources used for human consumption to bioaccumulate to levels that are harmful to human health.

### E. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

## V. PROVISIONS

### A. Standard Provisions

**1.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order/Permit.

**2.** The Discharger shall comply with the following Regional Water Board provisions:

a. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the California Water Code.

b. Odors, vectors, and other nuisances of sewage or sludge origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Regional Water Board, are prohibited.

c. All facilities used for collection, transport, treatment, or disposal of wastes shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.

d. Collection, treatment, and disposal systems shall be operated in a manner that precludes public contact with wastewater.

e. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Regional Water Board and USEPA.

f. The provisions of this Order/Permit are severable. If any provision of this order is found invalid, the remainder of this Order/Permit shall not be affected.

g. Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation under authority preserved by section 510 of the CWA.

h. Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties to which the discharger is or may be subject to under section 311 of the CWA.

i. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.

j. Discharge of wastes to any point other than specifically described in this Order/Permit is prohibited, and constitutes a violation thereof.

k. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the Federal CWA and amendments thereto.

l. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

m. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

n. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.

o. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

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

q. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify the Regional Water Board and USEPA of such change and shall notify the succeeding owner or operator of the existence of this Order/Permit by letter, copy of which shall be forwarded to the Regional Water Board and USEPA.

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

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

s. Under CWC section 13387, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this order, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained in this order and is subject to a fine of not more than $25,000 or imprisonment of not more than two years, or both. For a second conviction, such a person shall be punished by a fine of not more than $25,000 per day of violation, or by imprisonment of not more than four years, or by both.

t. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order/Permit.

u. The Discharger shall notify the Executive Officer and USEPA in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer and USEPA, which may be toxic to aquatic life. Such notification shall include:

i. Name and general composition of the chemical,

ii. Frequency of use,

iii. Quantities to be used,

iv. Proposed discharge concentrations, and

v. USEPA registration number, if applicable.

**2.** The Discharger shall comply with the following USEPA Region 9 Standard Provisions:

a. Transfers by Modification: Except as provided in 40 CFR 122.61(b), this Permit may be transferred by the Discharger to a new owner or operator only if the Permit has been modified or revoked and reissued (under 40 CFR 122.62(b)(2)), or a minor modification made (under 40 CFR 122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under the CWA. (40 CFR 122.61(a).)

b. Automatic Transfers: As an alternative to transfers under 40 CFR 122.61(a), this Order/Permit may be automatically transferred to a new permittee if: The notice includes a written agreement between the Discharger and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and the Water Division Director does not notify the Discharger and the proposed new permittee of his/her intent to modify or revoke and reissue the Order/Permit. A modification under this paragraph may also be a minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement between the Discharger and the new permittee. (40 CFR 122.61(b).)

c. Minor Modification of Permits: Upon the consent of the Discharger, the Water Division Director may modify the Order/Permit to make the corrections or allowances for changes in the permitted activity listed under 40 CFR 122.63(a) through (g), without following the procedures of 40 CFR 124. Any permit modification not processed as a minor modification under 40 CFR 122.63 must be made for cause and with 40 CFR 124 draft permit and public notice as required in 40 CFR 122.62. (40 CFR 122.63.)

d. Termination of Permits: The causes for terminating a permit during its term, or for denying a permit renewal application, are found at 40 CFR 122.64(a)(1) through (4). (40 CFR 122.64.)

e. Availability of Reports: Except for data determined to be confidential under 40 CFR 2, all reports prepared in accordance with the terms of this Order/Permit shall be available for public inspection at the offices of the Regional Water Board and USEPA. As required by the CWA, permit applications, permits, and effluent data shall not be considered confidential. (Pursuant to CWA section 308.)

f. Removed Substances: Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters. (Pursuant to CWA section 301.)

g. Severability: The provisions of this Order/Permit are severable, and if any provision of this Order/Permit, or the application of any provision of this Order/Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order/Permit shall not be affected thereby. (Pursuant to CWA section 512.)

h. Civil and Criminal Liability: Except as provided in standard conditions on Bypass and Upset, nothing in this Order/Permit shall be construed to relieve the Discharger from civil or criminal penalties for noncompliance. (Pursuant to CWA section 309.)

i. Oil and Hazardous Substances Liability: Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities, or penalties to which the Discharger is or may be subject under CWA section 311.

j. State or Tribal Law: Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relive the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by CWA section 510.

## B. Monitoring and Reporting Program (MRP) Requirements

**3.** The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order/Permit.

**4.** Reports required to be submitted to the Regional Water Board and USEPA shall be sent to:

California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013
Attention: Information Technology Unit

U.S. EPA, Region 9
ATTN: NPDES Data Team (WTR-1)
75 Hawthorne Street
San Francisco, CA 94105-3901

Notifications and report required to be provided to the Regional Water Board shall be made to:

Telephone – (213) 576-6616
Facsimile – (213) 576-6660

Notifications and report required to be provided to USEPA shall be made to:

Telephone – (415) 972-3577
Facsimile – (415) 947-3545

**5.** After notification by the State or Regional Water Board, or USEPA, the Discharger may be required to electronically submit self-monitoring reports. Until such time as electronic submissions of self-monitoring reports is required, the Discharger shall submit discharge monitoring reports (DMRs) in accordance with the requirements described in this Order/Permit.

DMRs must be signed and certified as required by the Standard Provisions of this Order/Permit (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to:

| **Standard Mail** | **FedEx/UPS/ Other Private Carriers** |
|---|---|
| State Water Resources Control Board<br>Division of Water Quality<br>c/o DMR Processing Center<br>PO Box 100<br>Sacramento, CA 95812-1000 | State Water Resources Control Board<br>Division of Water Quality<br>c/o DMR Processing Center<br>1001 I Street, 15th Floor<br>Sacramento, CA 95814 |

The Discharger shall submit one copy of the DMR to:

U.S. EPA, Region 9
ATTN: NPDES Data Team (WTR-1)
75 Hawthorne Street
San Francisco, CA 94105-3901

All discharge monitoring results should be reported on the official USEPA pre-printed DMR forms (USEPA Form 3320-1). Forms that are self-generated must be approved by USEPA.

## C. Special Provisions

**1.** Reopener Provisions

a. This Order/Permit may be modified, revoked, and reissued or terminated for cause in accordance with the provisions of 40 CFR 122.44, 122.62 to 122.64, 125.62, and 125.64.

b. This Order/Permit may be reopened and modified to incorporate new effluent limitations, based on ongoing monitoring data collected by the Discharger and evaluated by the Regional Water Board and USEPA.

c. If an applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order/Permit, the Regional Water Board and/or USEPA may institute permit proceedings to modify or revoke and reissue the Order/Permit to conform to the toxic effluent standard or prohibition.

d. This Order/Permit may be reopened and modified to incorporate requirements implementing the watershed management approach.

e. This Order/Permit may be reopened and modified to revise or incorporate effluent limitations based on the future adoption of applicable State water quality standards and implementation procedures, or TMDLs for the Santa Monica Bay Watershed Management Area.

f. This Order/Permit may be modified, or revoked and reissued, if present or future investigations demonstrate that the permitted discharge will cause, have the potential to cause, or contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

g. This Order/Permit may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Water Board and USEPA, to provide for dilution credits, as may be appropriate.

h. This Order/Permit may be reopened and modified to incorporate additional monitoring requirements and/or WQBELs for effluents discharged through Discharge Point 001, based on the results of chronic toxicity monitoring.

i. This Order/Permit may be reopened and modified to revise the monitoring and reporting program, as a result of future ocean outfalls being constructed in proximity to the existing Hyperion Treatment Plant outfalls.

## 2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Chronic Toxicity Monitoring Study of Combined Effluents

Immediately upon completion of the Phase V Expansion Project, the Discharger shall conduct a 14-month chronic toxicity monitoring study to review the impact of the combined West Basin and Hyperion Treatment Plant effluents on chronic toxicity, as specified in Section V of the Monitoring and Reporting Program (Attachment E).

b. Treatment Plant Capacity

Not applicable.

## 3. Best Management Practices and Pollution Prevention

a. The Discharger shall submit within 90 days of the effective date of this Order/Permit:

i. Storm Water Pollution Prevention Plan (SWPPP) -- The treatment plant is regulated under the State Water Board Water Quality, NPDES General Permit, WDRs for Discharge of Storm Water Associated with Industrial Activities Excluding Construction Activities.

ii. An updated SWPPP that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall be developed as specified under the statewide General Permit for Discharges of Storm Water Associated with Industrial Activities.

iii. An updated Spill Contingency Plan (SCP) that shall be site specific and shall cover all areas of the Facility. A Spill Control and Countermeasure Plan (SPCC), developed in accordance with 40 CFR 112, may be substituted for the SCP.

Each plan shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge point; describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material; and address the feasibility of containment and/or treatment of storm water. The plans shall be reviewed annually and at the same time. Updated information shall be submitted within 30 days of revision.

b. Pollutant Minimization Program (PMP)

Reporting protocols in the Monitoring and Reporting Program, Attachment E, describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a Reported Minimum Level (RML) and Method Detection Limit (MDL) are provided in the 2009 Ocean Plan. These reporting protocols and definitions are used in determining the need to conduct a PMP, as follows:

The Discharger shall develop and conduct a PMP as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order/Permit, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

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

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

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to CWC section 13263.3(d), shall fulfill the PMP requirements.

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

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

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

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

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

v. An annual status report that shall be sent to the Regional Water Board and USEPA including: All PMP monitoring results for the previous year; a list of potential sources of the reportable priority pollutant(s); a summary of all actions undertaken pursuant to the control strategy; and a description of actions to be taken in the following year.

**4. Construction, Operation and Maintenance Specifications**

a. Wastewater treatment facilities subject to this Order/Permit shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to California Code of Regulations, title 23, chapter 3, subchapter 14 (Section 13625 of the CWC).

b. The Discharger shall provide safeguards to assure that, should there be a reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order/Permit. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means.

**5. Sludge and Biosolids Management** – Refer to Attachment H.

## VI. COMPLIANCE DETERMINATION

Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined in the MRP.

### A. Compliance with Effluent Limitations expressed as Single Constituents

Dischargers are out of compliance with the effluent limitation if the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

### B. Compliance with Effluent Limitations expressed as Sum of Several Constituents

Dischargers are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as "Not Detected" (ND) or "Detected, but Not Quantified" (DNQ).

### C. Multiple Sample Data Reduction

The concentration of the pollutant in the effluent may be estimated from the result of a single sample analysis or by a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses when all sample results are quantifiable (i.e., greater than or equal to the reported Minimum Level). When one or more sample results are reported as ND or DNQ, the central tendency concentration of the pollutant shall be the median (middle) value of the multiple

samples, where DNQ is lower than a quantified value and ND is lower than DNQ. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

**D.** Sufficient sampling and analysis shall be required to determine compliance with the effluent limitation. If the analytical result of any single sample (daily discharge) monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL, the Discharger shall increase sampling frequency to weekly until compliance with the AMEL is demonstrated. All analytical results shall be reported as specified in Section VIII—Compliance Determination.

**E. Average Monthly Effluent Limitation (AMEL)**

If the average (or when applicable, the median determined by subsection 3 above for multiple sample data reduction) of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). However, an alleged violation of the AMEL will be considered one violation for the purpose of assessing mandatory minimum penalties. The average of daily discharges over a calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample (daily discharge) is taken over a calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that month. If no sample (daily discharge) is taken over a calendar month, no compliance determination can be made for that month with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

**F. Average Weekly Effluent Limitation (AWEL)**

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter (e.g., resulting in seven days of non-compliance). However, an alleged violation of the AWEL will be considered one violation for the purpose of assessing mandatory minimum penalties. The average of daily discharges over a calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample (daily discharge) is taken over a calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that week. If no sample (daily discharge) is taken over a calendar week, no compliance determination can be made for that week with respect to effluent violation determination, but compliance determination can be made for that week with respect to reporting violation determination.

A calendar week will begin on Sunday and end on Saturday. Partial calendar weeks at the end of the calendar month will be carried forward to the next month in order to calculate and report a consecutive seven-day average value on Saturday.

### G. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge on a calendar day exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that day for that parameter. If no sample (daily discharge) is taken over a calendar day, no compliance determination can be made for that day with respect to effluent violation determination, but compliance determination can be made for that day with respect to reporting violation determination.

### H. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample exceeds (is lower than) the instantaneous minimum effluent limitation for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that single sample for that parameter. Non-compliance for each single grab sample will be considered separately (e.g., the analytical results of two grab samples taken over a calendar day that are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

### I. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample exceeds (is higher than) the instantaneous maximum effluent limitation for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that single sample for that parameter. Non-compliance for each single grab sample will be considered separately (e.g., the analytical results of two grab samples taken over a calendar day that both are higher than the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

### J. Six-month Median Effluent Limitation (6-MMEL)

If the median of daily discharges over a 180-day period exceeds the 6-MMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that 180-day period for that parameter (e.g., resulting in 180 days of non-compliance in a 180-day period). However, an alleged violation of the 6-MMEL will be considered one violation for the purpose of assessing mandatory minimum penalties. The median of daily discharges over a 180-day period that exceeds the 6-MMEL for a parameter will be considered out of compliance for that 180-day period only. If only a single sample (daily discharge) is taken over a 180-day period and the analytical result for that sample exceeds the 6-MMEL, the Discharger will be considered out of compliance for that 180-day period. If no sample (daily discharge) is taken over a 180-day period, no compliance determination can be made for that 180-day period with respect to effluent violation determination, but compliance determination can be made for that 180-day period with respect to reporting violation determination.

### K. Percent Removal

A percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

Daily discharge percent removal is calculated using the following equation:

$$\text{Percent Removal (\%)} = [1 - (C_{Effluent} \div C_{Influent})] \times 100\%$$

## L. Mass and Concentration Limitations

Compliance with mass effluent limitations and concentration effluent limitations for the same parameter shall be determined separately. When the concentration for a parameter in a sample is reported as ND or DNQ, the corresponding mass emission rate determined using that sample concentration shall also be reported as ND or DNQ.

## M. Mass Emission Rate

The daily discharge mass emission rate for any calendar day is calculated using the following equations:

$$\text{Daily Discharge mass emission rate (lb/day)} = \frac{8.337}{N}\sum_{i=1}^{N} Q_i C_i$$

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

in which "N" is the number of samples taken over any calendar day. If grab samples are taken, "Ci" is the constituent concentration (mg/L) and "Qi" is the flow rate (MGD) associated with each "N" grab sample. If composite samples are taken, "Ci" is the constituent concentration (mg/L) in each composite sample and "Qi" is the average flow rate (MGD) during the period over which sample compositing occurs.

The daily discharge concentration of a constituent shall be determined from the flow-weighted average of the same constituent in the combined waste stream using the following equations:

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

in which "N" is the number of component waste streams. "Ci" is the constituent concentration (mg/L) and "Qi" is the flow rate (MGD) associated with each "N" component waste stream. "Qt" is the total flow rate of the combined waste stream.

## N. Bacterial Standards and Analyses

The geometric mean used for determining compliance with bacterial standards is calculated using the following equation:

Geometric Mean = $(C_1 \times C_2 \times \ldots \times C_n)^{1/n}$

where "n" is the number of days samples were collected during the period and "C" is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling.

For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for *Enterococcus*). The detection method used for each analysis shall be reported with the results of the analysis.

Detection methods used for coliforms (total and fecal) and *Enterococcus* shall be those presented in Table 1A of 40 CFR 136 (most recent revision), unless alternate methods have been approved by USEPA pursuant to 40 CFR 136, or improved methods have been determined by the Executive Officer and/or USEPA.

## O. Single Operational Upset

A single operational upset (SOU) that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and limits the Discharger's liability in accordance with the following conditions:

A single operational upset is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.

A Discharger may assert SOU to limit liability only for those violations which the Discharger submitted notice of the upset as required in Attachment D – Standard Provisions.

For purpose outside of CWC section 13385(h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA Memorandum "Issuance of Guidance Interpreting Single Operational Upset" (September 27, 1989).

For purpose of CWC section 13385(h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC section 13385(f)(2).

## ATTACHMENT A – DEFINITIONS

**Acute Toxicity:**

a. Acute Toxicity (TUa)

Expressed in Toxic Units Acute (TUa)

$$TUa = \frac{100}{\text{96-hr LC 50\%}}$$

b. Lethal Concentration 50% (LC 50)

LC 50 (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard marine test species as specified in Ocean Plan Appendix III, Chapter II. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

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

$$TUa = \frac{\log (100 - S)}{1.7}$$

where:
S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

**Areas of Special Biological Significance (ASBS):** are those areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS.

**Average Monthly Effluent Limitation (AMEL)** means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. (40 CFR 122.2.)

**Average Weekly Effluent Limitation (AWEL)** means the highest allowable average of "daily discharges" over a calendar week (Sunday through Saturday), calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. (40 CFR 122.2.)

**Chlordane** shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

**Chronic Toxicity:** This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

a. Chronic Toxicity (TUc)

Expressed as Toxic Units Chronic (TUc)

$$TUc = \frac{100}{NOEL}$$

b. No Observed Effect Level (NOEL)

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

**Composite Sample**, for flow rate measurements, means the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

Composite sample, for other than flow rate measurements, means:

a. No fewer than eight individual sample portions taken at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual sample portion shall be directly proportional to the discharge flow rate at the time of sampling; or,

b. No fewer than eight individual sample portions taken of equal time volume taken over a 24 hour period. The time interval between each individual sample portion shall vary such that the volume of the discharge between each individual sample portion remains constant.

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

For a composite sample, if the duration of the discharge is less than 24 hours but greater than 8 hours, at least eight flow-weighted individual sample portions shall be taken during the duration of the discharge and composited. For a discharge duration of 8 hours or less, eight individual “grab samples” may be substituted and composited.

The composite sample result shall be reported for the calendar day during which composite sampling ends.

**Daily Discharge** means the “discharge of a pollutant” measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in

other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (40 CFR 122.2.)

**DDT** shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

**Degrade.** Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

**Detected, but Not Quantified (DNQ)** means sample results less than the reported Minimum Level, but greater than or equal to the laboratory's MDL.

**Dichlorobenzenes** shall mean the sum of 1,2- and 1,3-dichlorobenzene.

**Downstream Ocean Waters** shall mean waters downstream with respect to ocean currents.

**Dredged Material:** Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil".

**Enclosed Bays** are indentations along the coast, which enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

**Endosulfan** shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.

**Estuaries and Coastal Lagoons** are waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

**Grab Sample** means an individual sample collected during a period of time not to exceed 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not occur during hydraulic peaks.

**Halomethanes** shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

**HCH** shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

**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.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Water Board, whichever results in the lower estimate for initial dilution.

**Instantaneous Maximum Effluent Limitation:** the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum effluent limitation).

**Instantaneous Minimum Effluent Limitation:** the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum effluent limitation).

**Kelp Beds**, for purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

**Mariculture** is the culture of plants and animals in marine waters independent of any pollution source.

**Material:** (a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

**Maximum Daily Effluent Limitation (MDEL)** means the highest allowable “daily discharge”. (40 CFR Part 122.2.)

**MDL (Method Detection Limit)** is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero, as defined in 40 CFR part 136, Appendix B.

**Minimum Level (ML)** is the concentrations at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed.

**Natural Light:** Reduction of natural light may be determined by the Regional Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Water Board.

**Not Detected (ND)** means those sample results less than the laboratory's MDL.

**Ocean Waters** are the territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the State could affect the quality of the waters of the State, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

**PAHs (polynuclear aromatic hydrocarbons)** shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene (benzo[a]anthracene), 3,4-benzofluoranthene (benzo[b] fluoranthene), benzo[k]fluoranthene, 1,12-benzoperylene (benzo[ghi]perylene), benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

**PCBs (polychlorinated biphenyls)** shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

**Pollutant Minimization Program (PMP)** means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, in order to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to California Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements in Ocean Plan section III.C.9.

**Publicly Owned Treatment Works (POTW).** The term Publicly Owned Treatment Works or POTW means a treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such treatment works. (40 CFR 403.3(q))

**Reported Minimum Level** is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in their permit. The MLs included in this permit correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board in accordance with Ocean Plan section III.C.5. The ML is based on the proper application of method-specific analytical procedures and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the reported ML. (See Ocean Plan section III.C.6.)

**Shellfish** are organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams and oysters).

**Significant Difference** is defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

**Six-month Median Effluent Limitation:** the highest allowable moving median of all "daily discharges" for any 180-day period.

**State Water Quality Protection Areas (SWQPAs)** are nonterrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolutions 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

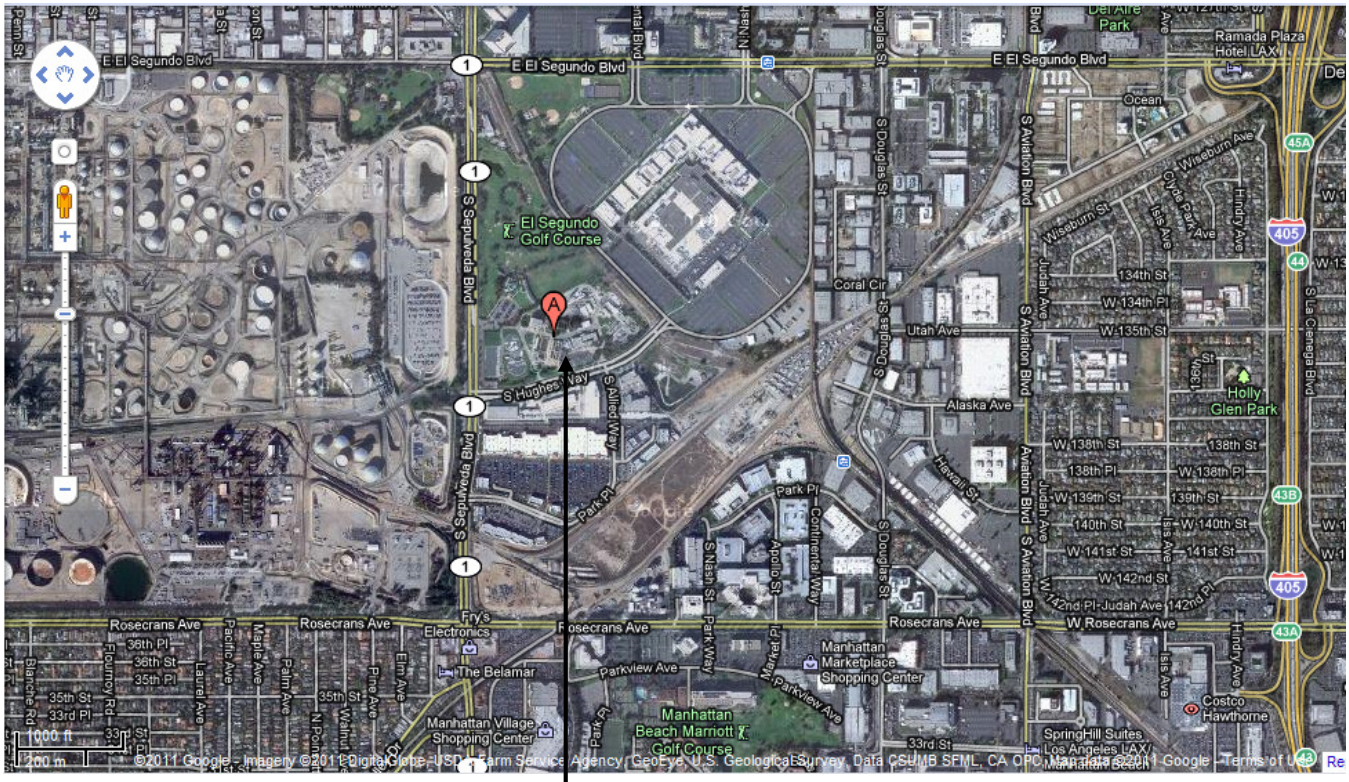
**TCDD Equivalents** shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

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

**Waste:** As used in the Ocean Plan, waste includes a discharger's total discharge, or whatever origin, i.e., gross, not net, discharge.

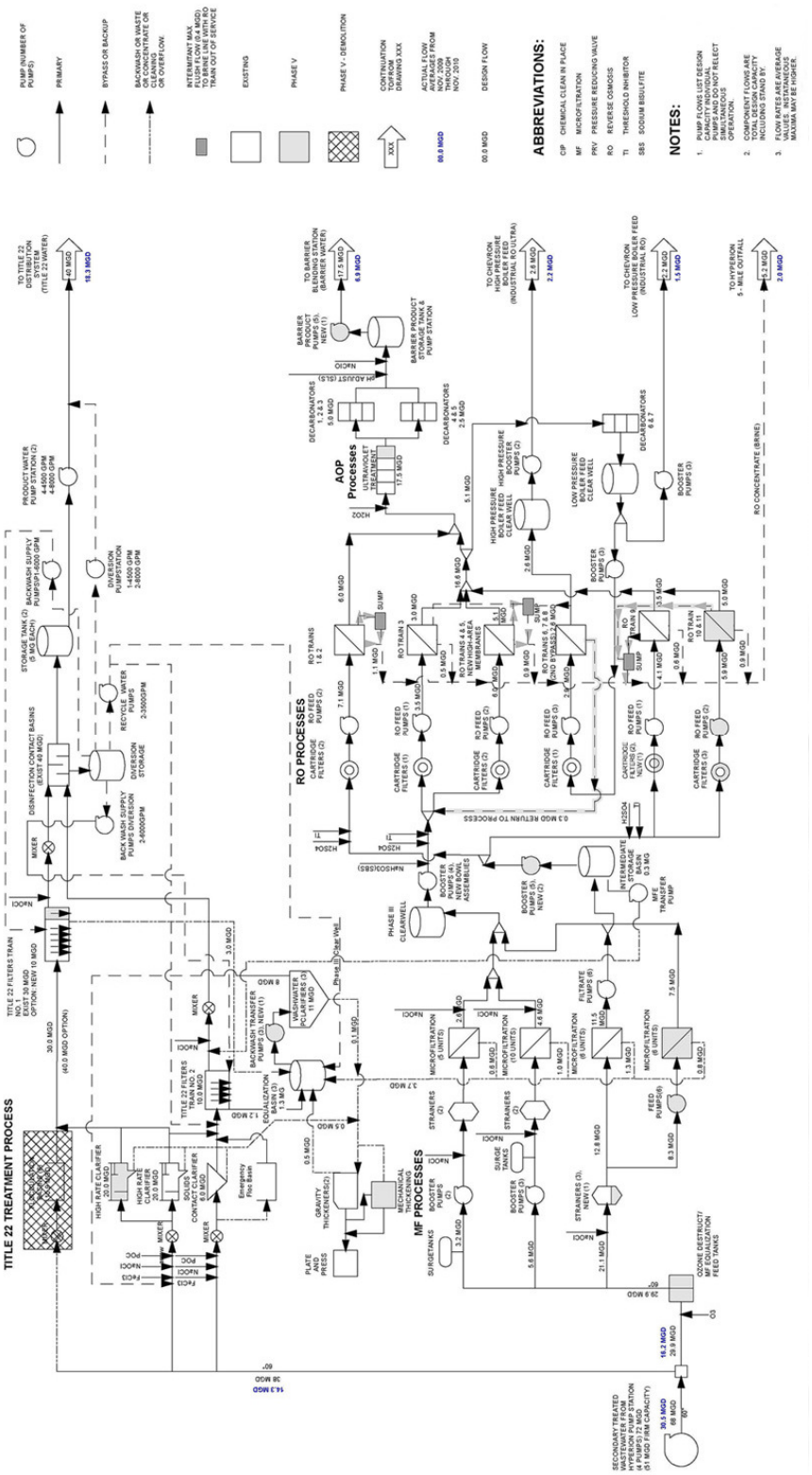
**Water Reclamation:** The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

## ATTACHMENT B – MAP




Edward C. Little Water Recycling Plant

# ATTACHMENT C – FLOW SCHEMATIC



# ATTACHMENT D –STANDARD PROVISIONS

## I. STANDARD PROVISIONS – PERMIT COMPLIANCE

### A. Duty to Comply

**1.** The Discharger must comply with all of the conditions of this Order/Permit. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 CFR part 122.41(a))

**2.** The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order/Permit has not yet been modified to incorporate the requirement. (40 CFR part 122.41(a)(1))

### B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order/Permit. (40 CFR part 122.41(c))

### C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order/Permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR part 122.41(d))

### D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order/Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order/Permit. (40 CFR part 122.41(e))

### E. Property Rights

**1.** This Order/Permit does not convey any property rights of any sort or any exclusive privileges. (40 CFR part 122.41(g))

**2.** The issuance of this Order/Permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations. (40 CFR part 122.5(c))

## F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 CFR part 122.41(i); California Water Code (CWC) section 13383):

**1.** Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order/Permit (40 CFR part 122.41(i)(1));

**2.** Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order/Permit (40 CFR part 122.41(i)(2));

**3.** Inspect and photograph at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order/Permit (40 CFR part 122.41(i)(3)); and

**4.** Sample or monitor at reasonable times for the purposes of assuring Order/Permit compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location. (40 CFR part 122.41(i)(4))

## G. Bypass

### 1. Definitions

a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR part 122.41(m)(1)(i))

b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR part 122.41(m)(1)(ii))

**2. Bypass not exceeding limitations.** The Discharger may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5. (40 CFR part 122.41(m)(2))

**3. Prohibition of bypass.** Bypass is prohibited, and the Regional Water Board and USEPA may take enforcement action against a Discharger for bypass, unless (40 CFR part 122.41(m)(4)(i)):

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR part 122.41(m)(4)(i)(A));

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance (40 CFR part 122.41(m)(4)(i)(B)); and

c. The Discharger submitted notice to the Regional Water Board and USEPA as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR part 122.41(m)(4)(i)(C))

**4.** The Regional Water Board and USEPA may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board and USEPA determine that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3. (40 CFR part 122.41(m)(4)(ii))

**5. Notice**

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least ten days before the date of the bypass. (40 CFR part 122.41(m)(3)(i))

b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E (24-hour notice). (40 CFR part 122.41(m)(3)(ii))

## H. Upset

Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR part 122.41(n)(1))

**1.** Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for

noncompliance, is final administrative action subject to judicial review. (40 CFR part 122.41(n)(2))

**2.** Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR part 122.41(n)(3)):

a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR part 122.41(n)(3)(i));

b. The permitted facility was at the time being properly operated (40 CFR part 122.41(n)(3)(ii));

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b (24-hour notice) (40 CFR part 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C. (40 CFR part 122.41(n)(3)(iv))

**3.** Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR part 122.41(n)(4))

## II. STANDARD PROVISIONS – PERMIT ACTION

### A. General

This Order/Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order/Permit condition. (40 CFR part 122.41(f))

### B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order/Permit after the expiration date of this Order/Permit, the Discharger must apply for and obtain a new Order/Permit. (40 CFR part 122.41(b))

### C. Transfers

This Order/Permit is not transferable to any person except after notice to the Regional Water Board and USEPA. The Regional Water Board and USEPA may require modification or revocation and reissuance of the Order/Permit to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and CWC. (See 40 CFR part 122.61; in some cases, modification or revocation and reissuance is mandatory.) (40 CFR part 122.41(l)(3))

## III. STANDARD PROVISIONS – MONITORING

**A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR part 122.41(j)(1))

**B.** Monitoring results must be conducted according to test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, unless other test procedures have been specified in the Order/Permit. (40 CFR part 122.41(j)(4))

## IV. STANDARD PROVISIONS – RECORDS

**A.** Except for records of monitoring information required by this Order/Permit related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order/Permit, and records of all data used to complete the application for this Order/Permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer or USEPA Water Division Director at any time. (40 CFR part 122.41(j)(2)) It is recommended that the Discharger maintain the results of all analyses indefinitely.

**B. Records of monitoring information shall include:**

**1.** The date, exact place, and time of sampling or measurements (40 CFR part 122.41(j)(3)(i));

**2.** The individual(s) who performed the sampling or measurements (40 CFR part 122.41(j)(3)(ii));

**3**. The date(s) analyses were performed (40 CFR part 122.41(j)(3)(iii));

**4.** The individual(s) who performed the analyses (40 CFR part 122.41(j)(3)(iv));

**5.** The analytical techniques or methods used (40 CFR part 122.41(j)(3)(v)); and

**6.** The results of such analyses. (40 CFR part 122.41(j)(3)(vi))

**C. Claims of confidentiality for the following information will be denied (40 CFR part 122.7(b)):**

**1.** The name and address of any permit applicant or Discharger (40 CFR part 122.7(b)(1)); and

**2.** Permit applications, permits and effluent data. (40 CFR part 122.7(b)(2))

# V. STANDARD PROVISIONS – REPORTING

## A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA, within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order/Permit or to determine compliance with this Order/Permit. The Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA, upon request, copies of records required to be kept by this Order/Permit. (40 CFR part 122.41(h); CWC section 13267)

## B. Signatory and Certification Requirements

**1.** All Order/Permit applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5. See 40 CFR part122.22.

**2.** All Order/Permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR part 122.22(a)(3))

**3.** All reports required by this Order/Permit and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2, or by a duly authorized representative of that person. A person is a duly authorized representative only if (40 CFR §122.22(b):

a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 (40 CFR part 122.22(b)(1));

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR part 122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board, State Water Board, and USEPA. (40 CFR part 122.22(b)(3))

**4.** Changes to authorization. If an authorization under Standard Provisions – Reporting V.B.3 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 must be submitted to the Regional Water Board, State Water Board, and USEPA prior to or together with any reports, information, or applications to be signed by an authorized representative. (40 CFR part 122.22(c))

**5.** Certification. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR part 122.22(d))

## C. Monitoring Reports

**1.** Monitoring results shall be reported at the intervals specified elsewhere in this Order/Permit. (40 CFR part 122.41(l)(4))

**2.** Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board, State Water Board, or USEPA for reporting results of monitoring of sludge use or disposal practices. (40 CFR part 122.41(l)(4)(i))

**3.** If the Discharger monitors any pollutant more frequently than required by this Order/Permit using test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, or as specified in this Order/Permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board or USEPA. (40 CFR part 122.41(l)(4)(ii))

**4.** Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Order/Permit. (40 CFR part 122.41(l)(4)(iii))

## D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order/Permit, shall be submitted no later than 14 days following each schedule date. (40 CFR part 122.41(l)(5))

## E. Twenty-Four Hour Reporting

**1.** The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided to the Regional Water Board within 5 days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR §122.41(l)(6)(i))

**2.** The following shall be included as information which must be reported within 24 hours under this paragraph (40 CFR part 122.41(l)(6)(ii)):

a. Any unanticipated bypass which exceeds any effluent limitation in the Order/Permit. (See 40 CFR part 122.41(g).) (40 CFR part 122.41(l)(6)(ii)(A))

b. Any upset which exceeds any effluent limitation in this Order/Permit. (40 CFR part 122.41(l)(6)(ii)(B))

c. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the Order/Permit to be reported within 24 hours. (See 40 CFR 122.44(g).) (40 CFR 122.41(6)(ii)(C))

**3.** The Regional Water Board and USEPA may waive the written report on a case-by-case basis for reports under Standard Provisions – Reporting V.E.2 of this section if the oral report has been received within 24 hours. (40 CFR part 122.41(l)(6)(iii))

## F. Planned Changes

The Discharger shall give notice to the Regional Water Board and USEPA as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when (40 CFR part 122.41(l)(1)):

**1.** The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR part 122.29(b) (40 CFR part 122.41(l)(1)(i)); or

**2.** The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the Order/Permit, nor to notification requirements under 40 CFR part 122.42(a)(1). (40 CFR part 122.41(l)(1)(ii))

**3.** The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may

justify the application of Order/Permit conditions that are different from or absent in the Order/Permit, including notification of additional use or disposal sites not reported during the Order/Permit application process or not reported pursuant to an approved land application plan. (40 CFR part 122.41(l)(1)(iii))

### G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board and USEPA of any planned changes in the permitted facility or activity that may result in noncompliance with Order/Permit requirements. (40 CFR part 122.41(l)(2))

### H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E of this section. (40 CFR part 122.41(l)(7))

### I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in an Order/Permit application, or submitted incorrect information in an Order/Permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR part 122.41(l)(8))

## VI. STANDARD PROVISIONS – ENFORCEMENT

**A.** The Regional Water Board is authorized to enforce the terms of this Order/Permit under provisions of the California Water Code including, but not limited to, sections 13385, 13386, and 13387.

**B.** The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who *negligently* violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who *knowingly* violates such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or

subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions. (40 CFR 122.41(a)(2))

**C.** Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000. (40 CFR 122.41(a)(3))

**D.** The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. (40 CFR 122.41(j)(5))

**E.** The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both. (40 CFR 122.41(k)(2))

## VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

### A. Publicly Owned Treatment Works

All POTWs must provide adequate notice to the Regional Water Board and USEPA of the following: (40 CFR part 122.42(b))

**1.** Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to section 301 or 306 of the CWA if it were directly discharging those pollutants; and (40 CFR part 122.42(b)(1))

**2.** Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the Order/Permit. (40 CFR part 122.42(b)(2))

**3.** For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 CFR part 122.42(b)(3))

# ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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# ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 7449

The title 40, Code of Federal Regulations (CFR)[1], part 122.48 requires that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. California Water Code (CWC) sections 13267 and 13383 also authorize the Los Angeles Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

## I. GENERAL MONITORING PROVISIONS

**A.** An effluent sampling station shall be established for the point of discharge (Discharge Point 001, Latitude 33° 54' 43" N, Longitude 118° 31' 17" W) and shall be located where representative samples of that effluent can be obtained.

**B.** Effluent samples shall be taken downstream of any addition to the treatment facility and prior to mixing with the Hyperion Treatment Plant discharge and receiving waters.

**C.** The Regional Water Board and the U.S. Environmental Protection Agency (USEPA) shall be notified in writing of any change in either the sampling station once established, or in the methods for determining the quantities of pollutants in the waste stream.

**D.** Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136 (most recent revision); or where no methods are specified for a given pollutant, by methods approved by the Regional Water Board, the State Water Resources Control Board (State Water Board), or USEPA.

**E.** All analyses shall be accompanied by the chain of custody or internal laboratory tracking documents, as applicable, including but not limited to date and time of sampling, sample identification, name of person who performed sampling, date of analysis, name of person who performed the analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.

**F.** The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments to insure accuracy of measurements, or insure that both equipment activities are conducted.

**G.** The Discharger shall have and implement an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in Section X.C shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or

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

at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.

**H.** The Discharger shall instruct its laboratories to establish calibration standards so that the Minimum Levels[2] (ML) (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section K below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix II of the 2009 Ocean Plan.

**I.** In accordance with Section III.C.5.b of the 2009 Ocean Plan, the Regional Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program Manager, may establish an ML that is not contained in Appendix II of the 2009 Ocean Plan to be included in the Discharger's Order/Permit in any of the following situations:

**1.** When a pollutant under consideration is not listed in Appendix II;

**2.** When the Discharger and the Regional Water Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR part 136;

**3.** When the Discharger agrees to use an ML that is lower than those listed in Appendix II;

**4.** When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix II and proposes an appropriate ML for the matrix; or,

**5.** When the Discharger uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are the USEPA-approved method 1613 for dioxins, and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Water Board, and State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

## II. MONITORING LOCATIONS

The Discharger shall establish the following effluent monitoring location to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order/Permit. The effluent sampling station shall be located downstream of brine waste effluent discharged from the Plant and before commingling with the secondary-treated effluent at the Hyperion Treatment Plant (HTP) pump station.

[2] See Attachment A for definition of terms.

**Table E-1. Monitoring Station Locations**

| Discharge Point Name | Monitoring Location Name | Monitoring Location Description |
|---|---|---|
| 001[3] (Hyperion Treatment Plant Discharge Point 002) | EFF-001 | The effluent sampling station (33º 54' 35" N, 118º 23' 32" W) is located at northeast side of the Plant, downstream of the brine waste effluent discharged from the Plant and before commingling with the secondary-treated effluent at the Hyperion Treatment Plant pump station. |

## III. INFLUENT MONITORING REQUIREMENTS

Not applicable.

## IV. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to:

- Determine compliance with this Order/Permit and water quality standards.
- Assess Plant performance, identify operational problems, and improve Plant performance.
- Provide information on brine waste characteristics and flows for use in interpreting discharge and water quality data.

### A. Monitoring Location EFF-001

**1.** The Discharger shall monitor brine waste effluent at EFF-001, as follows. If more than one analytical test method is listed for a given parameter, then the Discharger must select from the listed methods and corresponding Minimum Levels:

**Table E-2. Effluent Monitoring**

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Total brine waste flow | MGD | Recorder | Continuously[4] | [4] |
| Oil and Grease | mg/L | Grab | Monthly | [5] |
| pH | pH unit | Grab | Monthly | [5] |
| Temperature | $^0$C | Grab | Monthly | [5] |
| Settleable solids | mL/L | Grab | Monthly | [5] |
| Total suspended solids | mg/L | Grab | Monthly | [5] |
| Ammonia nitrogen | mg/L | Grab | Monthly | [5] |

[3] Discharge Point 001 in the Order No. R4-2012-0026 corresponds to Hyperion Treatment Plant Discharge Point 002 (Hyperion Treatment Plant "5-mile outfall") in the Hyperion Treatment Plant NPDES permit (CA0109991), reissued in 2010.

[4] Actual total daily flow (24-hour basis) shall be recorded and reported.

[5] Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136. For priority pollutants, the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the Ocean Plan; or where no methods are specified for a given pollutant, by methods approved by the Regional Water Board, State Water Board, or USEPA.

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Turbidity | NTU | Grab | Monthly | [5] |
| Salinity | $^0/_{00}$ | Grab | Monthly | [5] |
| Remaining pollutants in Table B of the 2009 Ocean Plan (excluding chronic and acute toxicity)[6] | µg/L | 24-hr composite or grab, as applicable, according to 40 CFR part 136 | Semiannually | [5] |

## V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

### A. Chronic Toxicity Monitoring Study of Combined Effluents

Immediately upon completion of the Phase V Expansion Project, the Discharger shall conduct a 14-month chronic toxicity monitoring study to review the impact of the combined West Basin and Hyperion Treatment Plant effluents on chronic toxicity, following initial mixing with the receiving water body, under critical dilution conditions. The Discharger, in coordination with the City of Los Angeles, Hyperion Treatment Plant, shall prepare a detailed workplan for this monitoring study describing the steps the Discharger will follow to measure the chronic toxicity of the combined effluents, under critical dilution conditions. This workplan shall include the elements specified below. Within 180 days of the effective date of this Order/Permit, the Discharger shall submit their detailed workplan for this monitoring study to the Regional Water Board Executive Officer and USEPA Water Division Director for review and approval. The workplan shall be immediately implemented by the Discharger following approval by the Executive Officer and Director and operation of the Phase V Expansion.

As part of this monitoring study, the Discharger shall conduct chronic toxicity tests on manually composited samples of combined West Basin and Hyperion Treatment Plant effluents every other month, for a 14-month period. This testing shall be done concurrently with monthly chronic toxicity tests conducted under the 2010 Order/Permit for Hyperion Treatment Plant (NPDES No. CA0109991). During this study period, splits of the combined effluent samples for chronic toxicity testing shall be analyzed for all parameters on the monitoring schedule specified in Table E-2 of the MRP (Attachment E).

**1.** Species and short-term test methods for estimating the chronic toxicity of NPDES effluents are found in the first edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995) and the 2009 Ocean Plan. The Discharger shall conduct a static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01); a static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination

[6] This constituent did not show reasonable potential. The minimum frequency for effluent analysis remains as "semiannually".

and Growth Test Method 1009.0); and a toxicity test with an invertebrate species selected from the following list and used for the monthly chronic toxicity test required by the 2010 Order/Permit for Hyperion Treatment Plant:

Static renewal toxicity test with the mysid, *Holmesimysis costata* (Survival and Growth Test Method 1007.01);

Static non-renewal toxicity test with the Pacific oyster, *Crassostrea gigas*, or the mussel, *Mytilus* spp. (Embryo-larval Shell Development Test Method 1005.0);

Static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method);

Static non-renewal toxicity tests with the purple sea urchin, *Strongylocentrotus purpuratus*, or the sand dollar, *Dentraster excentricus* (Embryo-larval Development Test Method); or

Static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, or the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0).

**2.** There is no chronic toxicity effluent limitation prescribed for the West Basin brine waste discharge. For the combined West Basin and Hyperion Treatment Plant effluents, the chronic toxicity in-stream waste concentration (IWC) is 1.19% effluent (i.e., 100% combined effluent divided by the HTP "five-mile outfall" dilution factor of 84). This combined effluent sample for chronic toxicity testing is a manual composite comprised of 2.01% West Basin brine waste effluent and 97.99% Hyperion Treatment Plant undisinfected secondary treated effluent. The Regional Water Board and USEPA have chosen these values because under critical conditions in the HTP "five-mile outfall", 2.01% of the combined effluent flow is from the West Basin discharge [5.2 MGD, highest brine waste flow rate following recycling plant expansion divided by (253.9 MGD + 5.2 MGD), lowest monthly average Hyperion Treatment Plant effluent flow rate and highest brine waste flow rate, x 100] and 97.99% of the combined effluent flow rate is from the Hyperion Treatment Plant discharge (100% - 2.01%).

**3.** For purposes of this Order/Permit, the Discharger shall report monitoring study results using the Test of Significant Toxicity hypothesis testing approach (*National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document*, EPA 833-R-10-003, June 2010) and TUc = 100/NOEC; a full laboratory report for all monitoring study toxicity testing shall be submitted as an attachment to the quarterly SMR/DMR for the corresponding month in which the toxicity test is conducted and shall include: the toxicity test results (as Pass or Fail based on t value calculated using Welch's t-test, percent mean effect at IWC, TUc = 100/NOEC, NOEC, TUc = 100/EC25 or IC25, and IC25 or EC25.

**4.** Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified, below.

a. The chronic IWC for the combined West Basin and Hyperion Treatment Plant discharge is 1.190% effluent. The combined effluent sample for chronic toxicity testing is a manual composite comprised of 2.01% West Basin brine waste effluent and 97.99% Hyperion Treatment Plant undisinfected secondary treated effluent. The sample for West Basin brine waste effluent is a 24-hour composite effluent sample collected at Effluent Monitoring Location EFF-001. The sample for Hyperion Treatment Plant undisinfected secondary treated effluent is a 24-hour composite effluent sample collected at Effluent Monitoring Location EFF-002, in the 2010 Order/Permit for Hyperion Treatment Plant. A series of at least five effluent dilutions and proper controls shall be tested. At minimum, the dilution series shall include the combined discharge IWC and two dilutions above and below this IWC.

b. For the combined effluents, dilution water shall be prepared as specified in the Hyperion Treatment Plant permit for conducting Hyperion Treatment Plant chronic toxicity tests. The dilution water described above and proper control waters should be prepared and used as specified in the test methods manual, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, August 1995). If the dilution water is different from test organism culture water, then a second control using culture water shall also be used. If the use of artificial sea salts is considered provisional in the test method, then artificial sea salts shall not be used to increase the salinity of the effluent sample prior to toxicity testing without written approval by the Regional Water Board and USEPA.

c. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicity testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).

d. If either the reference toxicant or effluent toxicity tests to not meet all test acceptability criteria in the test methods manual, then the Discharger must resample and retest within 14 days.

e. Because this Order/Permit requires sublethal hypothesis testing endpoints from test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, August 1995), with-in test variability must be reviewed for acceptability and a variability criterion (e.g., % MSD) must be applied, as directed under each test method.

f. If the discharged effluent is chlorinated, then chlorine shall not be removed from the effluent prior to toxicity testing without written approval by the Regional Water Board and USEPA.

g. Where total ammonia concentrations in the effluent are ≥5 mg/L, toxicity may be contributed by unionized ammonia. pH drift during the toxicity test may contribute to artifactual toxicity when ammonia or other pH-dependent toxicants (e.g., metals) are present. If sample toxicity is confirmed to be artifactual and due to pH drift (as determined through parallel toxicity testing described in Section 11.3.6.1 of the test methods manual *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA-821-R-02-013, October 2002)), then, following written approval by the Regional Water Board and USEPA, the Discharger may use procedures outlined in Section 11.3.6.2 of the test methods manual to control sample pH during the toxicity test.

**5.** Within 90 days of direction by the Regional Water Board Executive Officer and USEPA Water Division Director, the Discharger shall prepare and submit for review a copy of an Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan (1-2 pages). This plan shall include steps the Discharger intends to follow if toxicity is measured below the chronic IWC for the combined West Basin and Hyperion Treatment Plant discharge and should include, at minimum:

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

b. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.

c. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).

**6.** As directed by the Regional Water Board Executive Officer and USEPA Water Division Director, the Discharger shall, in coordination with the City of Los Angeles, Hyperion Treatment Plant, conduct a TRE/TIE using the same species and test method(s) and, as guidance and based on the type of treatment facility, EPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA 833-B-99-002, August 1999) or EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, April 1989). In conjunction, the Discharger, in coordination with the City of Los Angeles, Hyperion Treatment Plant, shall develop and implement a Detailed TRE Workplan which shall include: further actions undertaken by the Discharger to investigate, identify,

and correct the causes of toxicity; actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and a schedule for these actions. The Discharger may initiate a Toxicity Identification Evaluation (TIE) as part of a TRE to identify the causes of toxicity, using as guidance USEPA manuals: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, May 1992); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, September 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, September 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, September 1996).

## VI. RECEIVING WATER MONITORING REQUIREMENTS

A receiving water monitoring program is not prescribed in this Order/Permit because receiving water monitoring for the Hyperion Treatment Plant "5-mile outfall" is covered under the Hyperion Treatment Plant NPDES permit (CA0109991), Monitoring and Reporting Program CI-1492. However, regional monitoring programs have been developed and this Order/Permit may be reopened and modified to require the Discharger's participation in a regional monitoring program.

## VII. REPORTING REQUIREMENTS

### A. General Monitoring and Reporting Requirements

**1.** The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

**2.** If there is no discharge during any reporting period, the report shall so state.

**3.** The date and time of sampling (as appropriate) shall be reported with the analytical values determined.

**4.** The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the Facility is operating in compliance with this Order/Permit.

**5.** The Discharger shall report with each sample result the applicable reported ML and the laboratory's current MDL determined by the procedure in 40 CFR part 136.

**6.** The Discharger shall attach a cover letter to the Monitoring Report. The information contained in the cover letter shall clearly identify violations of the Order/Permit; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

**7.** Each Monitoring Report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned, that may be needed to bring the discharge into full compliance with the Order/Permit. This section shall clearly list all non-compliance with the Order/Permit, as well as all excursions of effluent limitations.

**8.** All effluent analyses and results shall be reported in the monitoring reports as specified in Table E-3, below. Should there be instances when monitoring cannot not be done during these specified months, the Discharger must notify the Regional Water Board and USEPA, state the reason why the monitoring cannot not be conducted, and obtain approval from the Executive Officer and USEPA for an alternate schedule.

**9.** The Discharger shall select the analytical method that provides a ML lower than the effluent limitation established for a given parameter or where no such requirement exists, the lowest applicable water quality objective in the Ocean Plan. If the effluent limitation, or the water quality objective, is lower than all the MLs in Appendix II of the 2009 Ocean Plan, the Discharger must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods and MLs employed for each test.

**10.** If the Discharger samples and analyzes (other than for process/operational control, startup, research, or equipment testing) any effluent constituent more frequently than required by this Order/Permit using approved analytical methods, then the results of those analyses shall be reported. These results shall be reflected in the calculation of the average used in demonstrating compliance with this Order/Permit.

**11.** The Discharger shall inform the Regional Water Board and USEPA well in advance of any proposed construction, maintenance, or modification to the Facility that could potentially affect compliance with applicable requirements.

**12.** The Discharger shall submit to the Regional Water Board and USEPA, together with the first monitoring report required by this Order/Permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

**13.** Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR part 136.3. All QA/QC analyses must be run on the same dates that samples are actually analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit this documentation when requested by the Regional Water Board and/or USEPA. Proper chain of custody procedures must be followed and a copy of this documentation shall be submitted with the quarterly reports.

**14.** The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments to insure accuracy of measurements.

**15.** The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section 16, below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix II of the 2009 Ocean Plan.

**16.** Upon request by the Discharger, the Regional Water Board, in consultation with the State Water Board's Quality Assurance Program and/or USEPA, may establish an ML that is not contained in Appendix II of the 2009 Ocean Plan, to be included in the Discharger's NPDES permit, in any of the following situations:

a. When the pollutant under consideration is not included in Appendix II;

b. When the Discharger agrees to use a test method that is more sensitive than those specified in 40 CFR part 136 (most recent revision);

c. When the Discharger agrees to use an ML lower than those listed in Appendix II;

d. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix II and proposes an appropriate ML for their matrix; or

e. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, Regional Water Board, State Water Board and USEPA shall agree on a lowest quantifiable limit, and that limit will substitute for the ML for reporting and compliance determination purposes.

**17.** Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136 or where no methods are specified for a particular pollutant, by methods approved by the Regional Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program and USEPA. For any analyses performed for which no procedure is specified in USEPA guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.

**18.** Laboratories analyzing effluent samples shall be certified by the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP), or approved by the Regional Water Board Executive Officer in

consultation with the State Water Board's Quality Assurance Program, and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP and must be submitted with the annual summary report. Each monitoring report must affirm in writing that: "All analyses were conducted at a laboratory certified for such analyses by the Department of Public Health or approved by the Regional Water Board Executive Officer, and in accordance with current USEPA guideline procedures or as specified in this MRP."

**19.** When requested by the Regional Water Board or USEPA, the Discharger shall participate in the NPDES Discharge Monitoring Report QA performance study. The Discharger must have a success rate equal to or greater than 80%.

**20.** In the event that brine waste is transported to a different disposal site during the reporting period, the following shall be reported in the monitoring report:

a. Types of wastes and quantity of each type;

b. Name and address for each hauler of wastes (or method of transport if other than by hauling); and

c. Location of the final point(s) of disposal for each type of waste.

If no brine waste is transported off-site during the reporting period, a statement to that effect shall be submitted.

**21.** Each monitoring report shall state whether or not there was any change in the discharge as described in the Order/Permit during the reporting period.

**22.** The monitoring report shall specify the analytical method used, the laboratory's MDL determined using the procedure in 40 CFR 136, and the Reporting Level (RL). The RL is the applicable minimum level (ML) or reported Minimum Level (RML) for each pollutant. For pollutants monitored under the Ocean Plan, the MLs are those published by the State Water Board in the 2009 Ocean Plan, Appendix II. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the analytical method procedures, such as dilution or concentration of samples, other factors are applied to the ML depending on the sample preparation. The resulting value is the reported Minimum Level.

**23.** The Discharger shall develop and maintain a record of all spills from their treatment facility according to the requirements of this Order/Permit. This record shall be made available to the Regional Water Board and USEPA upon request and a spill summary shall be included in the annual summary report.

## B. Self Monitoring Reports (SMRs) and Discharge Monitoring Reports (DMRs)

**1.** At any time during the term of this Order/Permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs in accordance with the requirements described in section B.5, below. The CIWQS web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

**2.** The Discharger shall report in the SMR/DMR the results for all monitoring specified in this MRP. The Discharger shall submit SMRs/DMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order/Permit. If the Discharger monitors any pollutant more frequently than required by this Order/Permit, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the monitoring reports.

**3.** Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule, except where specific monitoring periods and reporting dates are required elsewhere in this Order/Permit:

**Table E-3. Monitoring Periods and Reporting Schedule**

| Sampling Frequency | Monitoring Period Begins On . . . | Monitoring Period | SMR/DMR Due Date |
|---|---|---|---|
| Continuous | Order/Permit effective date | All | Submit with quarterly SMR/DMR |
| Monthly | First day of calendar month following Order/Permit effective date, or on effective date if that date is first day of the month | 1st day of calendar month through last day of calendar month | Submit with quarterly SMR/DMR |
| Quarterly | February 1, May 1, August 1, or November 1 following (or on) Order/Permit effective date | January 1 ~ March 31<br>April 1 ~ June 30<br>July 1 ~ September 30<br>October 1 ~ December 31 | May 15 (1st quarter)<br>August 15 (2nd quarter)<br>November 15 (3rd quarter)<br>February 15 (4th quarter) |
| Semiannually | Closest of January 1 or July 1 following (or on) Order/Permit effective date | January 1 ~ June 30<br>July 1 ~ December 31 | August 15 (2nd quarter)<br>February 15 (4th quarter) |
| Annually | Closest of August 1 following (or on) Order/Permit effective date | January 1 ~ December 31 | February 15 |

**4. Reporting Protocols**

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified", or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc.").

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected", or ND.

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

**5.** The Discharger shall submit hard copy SMRs in accordance with the following requirements:

a. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

b. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below. (Reference the reports to Compliance File No. CI-7449 to facilitate routing to the appropriate staff and file.)

California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013
Attention: Information Technology Unit

## C. Discharge Monitoring Reports (DMRs)

**1.** As described in Section VII.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

**2.** DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to the State Water Board address listed below. The Discharger shall submit one copy of the DMR to the USEPA address listed below:

State Water Resources Control Board
Division of Water Quality
c/o DMR Processing Center
PO Box 100
Sacramento, CA 95812-1000

Regional Administrator
U.S. Environmental Protection Agency, Region IX
ATTN: NPDES Data Team (WTR-1)
75 Hawthorne Street
San Francisco, CA 94105

**3.** All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated must be approved by USEPA.

## D. Other Reports

### 1. Annual Summary Report

By February 15 of each year, the Discharger shall submit an annual summary report containing a discussion of the previous year's effluent analytical results, as well as graphical and tabular summaries of the monitoring analytical data. The data shall be submitted to the Regional Water Board and USEPA on hard copy and a CD-Rom disk or other appropriate electronic medium. The submitted data must be IBM compatible, preferably using Microsoft Excel software. In addition, the Discharger shall discuss the compliance record and any corrective actions taken or planned that may be needed to bring the discharge into full compliance with Order/Permit requirements.

**2. Database Management System:** The Regional Water Board and State Water Board have developed a database compliance monitoring management system. The Discharger may submit all monitoring and annual summary reports electronically in a specified format.

**3. Sludge and Biosolids Management** – Refer to Attachment H.

**4. Chronic Toxicity Monitoring Study of Combined Effluents**

Full laboratory reports for all toxicity testing and the analytical results for all monitored parameters specified by the MRP for the combined effluent shall be submitted as an attachment to the SMR/DMR (submitted quarterly) for the month in which the toxicity test is conducted and shall include the toxicity results—as required in Section V of the MRP—reported according to the test methods manual chapter on report preparation and test review and USEPA whole effluent toxicity guidance manual for the Test of Significant Toxicity hypothesis testing approach; the date of sample collection and initiation of each toxicity test; all results for effluent parameters monitored concurrently with the toxicity test(s); and progress on TRE/TIE investigations. A final report summarizing the results and conclusions of the 14-month chronic toxicity monitoring study of combined effluents shall be submitted 18 months following the date of workplan approval by the Regional Water Board Executive Officer and USEPA Water Division Director and operation of the Phase V Expansion.

# ATTACHMENT F – FACT SHEET

## Table of Contents

## List of Tables

# 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 Edward C. Little Water Recycling Plant.

**Table F-1. Facility Information**

| | |
|---|---|
| **WDID** | 4B190137001 |
| **Discharger** | West Basin Municipal Water District |
| **Operator** | United Water |
| **Name of Facility** | Edward C. Little Water Recycling Plant |
| **Facility Address** | 1935 Hughes Way |
| | El Segundo, CA 90245 |
| | Los Angeles County |
| **Facility Contact, Title and Phone** | Uzi Daniel, Environmental Quality Analyst, (310) 660-6245 |
| **Authorized Person to Sign and Submit Reports** | Richard Nagel, General Manager, (310) 660-6210; or,<br>Shivaji Deshmukh, Assistant General Manager,a (310) 660-6234 |
| **Mailing Address** | 17140 S. Avalon Blvd., Suite 210, Carson, CA 90746 |
| **Billing Address** | 17140 S. Avalon Blvd., Suite 210, Carson, CA 90746 |
| **Type of Facility** | Water Recycling Plant (POTW) |
| **Major or Minor Facility** | Major |
| **Threat to Water Quality** | 3 |
| **Complexity** | C |
| **Pretreatment Program** | No |
| **Reclamation Rééquipements** | None |
| **Facility Permitted Flow** | 5.2 million gallons per day (MGD) of untreated brine waste |
| **Facility Design Flow** | 5.2 million MGD of untreated brine waste |
| **Watershed** | Santa Monica Bay Watershed Management Area |
| **Receiving Water** | Pacific Ocean |
| **Receiving Water Type** | Ocean waters |

**A.** The West Basin Municipal Water District (Discharger) is the owner of Edward C. Little Water Recycling Plant (Plant or Facility). The Facility is operated by United Water.

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 Facility discharges reverse osmosis brine waste (brine waste) to the Pacific Ocean, a water of the United States, and is currently regulated by Order R4-2006-0067, as modified, which was adopted on August 3, 2006 and expired on September 17, 2011. The terms and conditions of the current Order/Permit have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order/Permit.

**C.** The Discharger submitted Report of Waste Discharge (ROWD), dated October 12, 2010, and applied for an NPDES permit renewal to discharge up to 5.2 MGD of brine waste from the Plant to accommodate expansion Phase V. Additional ROWD information requested by Los Angeles Regional Water Quality Control Board (Regional Water Board) staff was received on December 10, 2010. A site visit was conducted on February 23, 2011, to observe operations and collect additional data in order to develop permit limitations and conditions. The revised ROWD was received on March 24, 2011. The application for the NPDES permit renewal and ROWD was deemed complete on March 28, 2011.

## II. FACILITY DESCRIPTION

The Plant is owned by the Discharger, operated by United Water, and located at 1935 Hughes Way, El Segundo, California. The Plant provides additional treatment to a portion of the secondary treated wastewater from the City of Los Angeles' Hyperion Treatment Plant (HTP) for use as Title 22 irrigation water; boiler feed water for Chevron El Segundo Refinery boilers; and groundwater direct injection for the West Coast Basin Barrier Project. Since 1995, the treatment design capacity of the Plant has expended to four phases. To meet increasing demand for water reuse, a Phase V expansion project is planned and will be completed in 2012. Table F-2 shows the Plant's design capacities for the types of water reuse and the volume of brine waste for each phase of the expansion. Brine waste is not treated prior to discharge to the Pacific Ocean via the Hyperion Treatment Plant "five-mile outfall" (Discharge Point 001).

**Table F-2. Water Uses, Brine Production, and Design Capacity at Five Phases**

| Phase (Completed) | Title 22 (MGD) | Barrier (MGD) | Chevron (MGD) | Power Plant (MGD) | Brine (MGD) | Total Design Capacity (MGD) |
|---|---|---|---|---|---|---|
| I (1995) | 15 | 5 | -- | -- | 1 | 21 |
| II (1997) | 30 | 7.5 | -- | -- | 2.8 | 40.3 |
| III (2001) | 30 | 7.5 | 4.3 | -- | 2.8 | 44.6 |
| IV (2006) | 40 | 12.5 | 4.3 | -- | 4.5 | 61.3 |
| V (2012) | 40 | 17.5 | 4.3 | 0.5 | 5.2 | 67.5 |

## A. Description of Wastewater and Sludge and Biosolids Treatment or Controls

**1.** The Facility currently has a total design capacity of 61.3 MGD and produces recycled water, using three treatment processes, for Title 22, Chevron, and Barrier uses.

**2.** Under the Title 22 treatment process, the Facility distributes water to a Title 22 distribution system for landscape, irrigation, and industrial purposes. The Title 22 process can treat up to 40 MGD of secondary-treated wastewater from the Hyperion Treatment Plant. The Title 22 process uses coagulation, flocculation, high rate clarifiers, monomedia anthracite coal filtration, and chlorine disinfection. All wastewater from this process is returned back into the system.

**3.** The advanced wastewater treatment facility currently treats up to approximately 16 MGD of secondary-treated wastewater for blending with potable water and injection into the West Coast Basin Barrier Project. The Barrier treatment process consists of automatic strainers, microfiltration, reverse osmosis, advanced oxidation process including hydrogen peroxide and UV, decarbonation, and lime stabilization. Approximately 3.7 MGD of brine waste generated from the reverse osmosis process is discharged to the Pacific Ocean.

**4.** The Facility operates a boiler feedwater treatment process for the Chevron El Segundo Refinery's low and high-pressure boilers. This treatment includes the processes shown in section 3, above, and a second treatment by reverse osmosis prior to distribution to the refinery. The boiler feed water treatment process produces up to 4.3 MGD of highly purified recycled water and approximately 0.8 MGD of brine waste that is discharged to the Pacific Ocean. A flow diagram of the existing treatment process and future treatment process is provided in Attachment C of this Order/Permit.

**5.** Sludge generated from the above-mentioned processes is dewatered onsite using two plate-and-frame presses. It is then hauled off-site to be beneficially reused at either a soil remediation facility, or as Alternate Daily Cover at a landfill.

## B. Discharge Points and Receiving Waters

**1.** Reverse osmosis brine waste produced at the Facility is discharged through Discharge Point 001 to the Pacific Ocean, a water of the United States. Discharge Point 001 also corresponds to the Hyperion Treatment Plant (HTP) "5-mile outfall". Table F-3 shows the description of the HTP "five-mile outfall". A location map of the Facility is provided in Attachment B of this Order/Permit.

**Table F-3. Description of the HTP "Five-Mile Outfall"**

| | |
|---|---|
| **Discharge Serial Number** | 001 |
| **Diameter of Pipe at Discharge Terminus (feet)** | 12 |
| **Outfall Distance Offshore (feet)** | 26,525 (including Y-shaped diffuser with |

| | |
|---|---|
| | two 3,840 ft legs) |
| **Discharge Depth Below Surface Water (feet)** | 187 |
| **Latitude and Longitude** | 33° 54' 72" N, 118° 31' 29" W (Outfall at start of wye structure)<br>33° 54' 43" N, 118° 31' 17" W (North terminus of wye structure)<br>33° 54' 02" N, 118° 31' 38" W (South terminus of wye structure) |

## C. Dilution Ratios and Percentages

The brine waste effluent discharged from the Facility combines and mixes with secondary effluent from the Hyperion Treatment Plant inside the HTP "five-mile outfall" (Discharge Point 001). The HTP "five-mile outfall" and diffuser system provides a minimum initial dilution of 84 parts seawater to 1 part effluent (84:1) for the discharge. Table F-4 shows: (1) two dilution ratios for the brine waste and HTP secondary effluent combined and mixed in the HTP "five-mile outfall", and the corresponding percentages of brine waste; and (2) two dilution ratios for the combined and mixed brine waste and HTP secondary effluent diluted in receiving waters of the Pacific Ocean at the end of critical initial dilution, and the corresponding percentages of brine waste. The dilution ratios and percentages are based on 450[1] MGD, HTP's design capacity, and 253.9[2] MGD, the lowest flow recorded for HTP in September 2010. Critical condition dilution ratios are used to conduct RPAs and calculate WQBELs, as explained in this Fact Sheet.

**Table F-4. Dilution Ratios and Percentages**

| Parameter | Dilution Ratio | Percentage of Brine Waste in Fluid |
|---|---|---|
| Brine waste : HTP secondary effluent in HTP "five-mile outfall" (first mixing event) | 5.2 MGD : 450 MGD ≅ 1 : 86.5 | 1.142% |
| | 5.2 MGD : 253.9 MGD ≅ 1 : 48.8 | 2.007% |
| Brine waste + HTP secondary effluent in HTP "five-mile outfall : Pacific Ocean discharged under critical conditions (second mixing event) | $1 : (86.5 \times 84^3) \cong 1 : 7270$ | 0.014% |
| | $1 : (48.8 \times 84^3) \cong 1 : 4100$ | 0.024% |

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

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

[1] The dry weather maximum design capacity for the HTP "five-mile outfall".
[2] The lowest monthly average flow discharged from HTP to the HTP "five-mile outfall", recorded in September 2010, for the period of September 2006 through June 2011.
[3] The minimum critical initial dilution ratio (Dm) used to calculate effluent limitations for water quality objectives in Table B of the Ocean Plan is 84:1 (i.e., 84 parts seawater to 1 part effluent) for the HTP "five-mile outfall".

## Table F-5. Historic Effluent Limitations and Monitoring Data

| Parameter | Units | Effluent Limitation | | | Monitoring Data (September 2006 – June 2011) | | |
|---|---|---|---|---|---|---|---|
| | | Average Monthly[4] | Average Weekly[4] | Maximum Daily[4] | Highest Average Monthly Discharge | Highest Average Weekly Discharge | Highest Daily Discharge |
| **Conventional/Non-Conventional** | | | | | | | |
| Total Suspended Solids | mg/L | -- | 60 | -- | 3 | -- | -- |
| Oil & Grease | mg/L | 25 | 40 | 75[5] | 7.1 | -- | -- |
| Settleable Solids | ml/L | 1.0 | 1.5 | 3.0[5] | <1 | -- | -- |
| pH | pH Unit | 6.0 – 9.0 | | | 7.7 | -- | -- |
| Temperature | $^{O}$F | -- | -- | 100 | 87.8 | -- | -- |
| Turbidity | NTU | 75 | 100 | 225[5] | 1.6 | -- | -- |
| **Marine Aquatic Life** | | | | | | | |
| Arsenic (As) | µg/L | -- | -- | -- | 23 | -- | -- |
| Cadmium (Cd) | µg/L | -- | -- | -- | 0.8 | -- | -- |
| Chromium Total (Cr) | µg/L | -- | -- | -- | 77 | -- | -- |
| Copper (Cu) | µg/L | -- | -- | -- | 88 | -- | -- |
| Lead (Pb) | µg/L | -- | -- | -- | 2.1 | -- | -- |
| Mercury (Hg) | µg/L | -- | -- | -- | 1 | -- | -- |
| Nickel (Ni) | µg/L | -- | -- | -- | 69.4 | -- | -- |
| Selenium (Se) | µg/L | -- | -- | -- | 22 | -- | -- |
| Silver (Ag) | µg/L | -- | -- | -- | 2.3 | -- | -- |
| Zinc (Zn) | µg/L | -- | -- | -- | 132 | -- | -- |
| Cyanide | µg/L | -- | -- | -- | 43 | -- | -- |
| Residual Chlorine | mg/L | -- | -- | -- | 1.9 | -- | -- |
| Ammonia-N | mg/L | 450[6] | -- | 11,000 | | -- | -- |
| Acute Toxicity | Tua | -- | -- | -- | -- | -- | -- |
| Chronic Toxicity | TUc | -- | -- | -- | | -- | -- |
| Non-Cl Phenolic Compounds | µg/L | -- | -- | -- | | -- | -- |
| Cl Phenolic Compounds | µg/L | -- | -- | -- | | -- | -- |
| Endosulfan | µg/L | -- | -- | -- | | -- | -- |
| Endrin | µg/L | -- | -- | -- | | -- | -- |
| HCH[7] | µg/L | -- | -- | -- | | -- | -- |
| **Human Health – Noncarcinogens** | | | | | | | |
| Acrolein | µg/L | -- | -- | -- | | -- | -- |
| Antimony | µg/L | -- | -- | -- | | -- | -- |
| Bis(2-chloroethoxy) methane | µg/L | -- | -- | -- | | -- | -- |

[4] See Section VII in the accompanying Order/Permit for definition.
[5] This number represents the instantaneous maximum.
[6] This number represents the 6-month median.
[7] See Attachment A for definition of terms.

| Parameter | Units | Effluent Limitation | | | Monitoring Data (September 2006 – June 2011) | | |
|---|---|---|---|---|---|---|---|
| | | Average Monthly[4] | Average Weekly[4] | Maximum Daily[4] | Highest Average Monthly Discharge | Highest Average Weekly Discharge | Highest Daily Discharge |
| **Human Health – Noncarcinogens** | | | | | | | |
| Bis(2-chloroisopropyl) ether | µg/L | -- | -- | -- | | -- | -- |
| Chlorobenzene | µg/L | -- | -- | -- | | -- | -- |
| Chromium III (Cr) | µg/L | -- | -- | -- | | -- | -- |
| Di-n-Butyl phthalate | µg/L | -- | -- | -- | | -- | -- |
| Dichlorobenzene[7] | µg/L | -- | -- | -- | | -- | -- |
| Diethyl phthalate | µg/L | -- | -- | -- | | -- | -- |
| Dimethyl phthalate | µg/L | -- | -- | -- | | -- | -- |
| 4,6-Dinitro-2-methylphenol | µg/L | -- | -- | -- | | -- | -- |
| 2,4-Dinitrophenol | µg/L | -- | -- | -- | | -- | -- |
| Ethylbenzene | µg/L | -- | -- | -- | | -- | -- |
| Fluoranthene | µg/L | -- | -- | -- | | -- | -- |
| Hexachlorocyclopentadiene | µg/L | -- | -- | -- | | -- | -- |
| Nitrobenzene | µg/L | -- | -- | -- | | -- | -- |
| Thallium | µg/L | -- | -- | -- | | -- | -- |
| Toluene | µg/L | -- | -- | -- | | -- | -- |
| Tributyltin | µg/L | -- | -- | -- | | -- | -- |
| 1,1,1-Trichloroethane | µg/L | -- | -- | -- | | -- | -- |
| **Human Health – Carcinogens** | | | | | | | |
| Acrylonitrile | µg/L | -- | -- | -- | | -- | -- |
| Aldrin | µg/L | -- | -- | -- | | -- | -- |
| Benzene | µg/L | -- | -- | -- | | -- | -- |
| Benzidine | µg/L | -- | -- | -- | | -- | -- |
| Berylium (Be) | µg/L | -- | -- | -- | | -- | -- |
| Bis(2-chloroethyl) ether | µg/L | -- | -- | -- | | -- | -- |
| Bis(2-ethylhexyl) phthalate | µg/L | -- | -- | -- | | -- | -- |
| Carbon tetrachloride | µg/L | -- | -- | -- | | -- | -- |
| Chlordane[7] | µg/L | -- | -- | -- | | -- | -- |
| Chlorodibromomethane | µg/L | -- | -- | -- | | -- | -- |
| Chloroform | µg/L | -- | -- | -- | | -- | -- |
| DDT[7] | µg/L | -- | -- | -- | | -- | -- |
| 1,4-Dichlorobenzene | µg/L | -- | -- | -- | | -- | -- |
| 3,3-Dichlorobenzidine | µg/L | -- | -- | -- | | -- | -- |
| 1,2-Dichloroethane | µg/L | -- | -- | -- | | -- | -- |
| 1,1-Dichloroethylene | µg/L | -- | -- | -- | | -- | -- |
| Dichlorobromomethane | µg/L | -- | -- | -- | | -- | -- |

| Parameter | Units | Effluent Limitation | | | Monitoring Data (September 2006 – June 2011) | | |
|---|---|---|---|---|---|---|---|
| | | Average Monthly[4] | Average Weekly[4] | Maximum Daily[4] | Highest Average Monthly Discharge | Highest Average Weekly Discharge | Highest Daily Discharge |
| **Human Health – Carcinogens** | | | | | | | |
| Dichloromethane | µg/L | -- | -- | -- | | -- | -- |
| 1,3-Dichloropropene | µg/L | -- | -- | -- | | -- | -- |
| Dieldrin | µg/L | -- | -- | -- | | -- | -- |
| 2,4-Dinitrotolulene | µg/L | -- | -- | -- | | -- | -- |
| 1,2-Diphenylhydrazine | µg/L | -- | -- | -- | | -- | -- |
| Halomethanes[7] | µg/L | -- | -- | -- | | -- | -- |
| Heptachlor | µg/L | -- | -- | -- | | -- | -- |
| Heptachlor epoxide | µg/L | -- | -- | -- | | -- | -- |
| Hexachlorobenzene | µg/L | -- | -- | -- | | -- | -- |
| Hexachlorobutadiene | µg/L | -- | -- | -- | | -- | -- |
| Hexachloroethane | µg/L | -- | -- | -- | | -- | -- |
| Isophorone | µg/L | -- | -- | -- | | -- | -- |
| N-Nitrosodimethylamine | µg/L | -- | -- | -- | | -- | -- |
| N-Nitrosodi-N-propylamine | µg/L | -- | -- | -- | | -- | -- |
| N-Nitrosodiphenylamine | µg/L | -- | -- | -- | | -- | -- |
| PAHs[7] | µg/L | -- | -- | -- | | -- | -- |
| PCBs[7] | µg/L | -- | -- | -- | | -- | -- |
| TCDD equivalents[7] | µg/L | -- | -- | -- | | -- | -- |
| 1,1,2,2-Tetrachloroethane | µg/L | -- | -- | -- | | -- | -- |
| Tetrachloroethylene | µg/L | -- | -- | -- | | -- | -- |
| Toxaphene | µg/L | -- | -- | -- | | -- | -- |
| Trichloroethylene | µg/L | -- | -- | -- | | -- | -- |
| 1,1,2-Trichloroethane | µg/L | -- | -- | -- | | -- | -- |
| 2,4,6-Trichlorophenol | µg/L | -- | -- | -- | | -- | -- |
| Vinyl chloride | µg/L | -- | -- | -- | | -- | -- |

## E. Compliance Summary

Data submitted show that there were no violations during the last Order/Permit cycle.

## F. Planned Changes

The Plant had undergone four phases of expansion to meet increasing water demands from its customers. The Discharger is planning its next expansion, Phase V, which will increase the amount of recycled water for the West Coast Basin Barrier Project from 12.5 MGD to 17.5 MGD and add capacity to provide the El Segundo Power Plant with 0.53 MGD of recycled water. To accommodate these increases,

the Discharger is requesting a flow increase for the discharge of brine waste from 4.5 MGD to 5.2 MGD.

## III. 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). This Order shall serve as an 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 CWC (commencing with section 13260). Although Discharge Point 001 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 CWC section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 through 21177.

### C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board has 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 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. Beneficial uses applicable to the Pacific Ocean are as follows:

**Table F-6. Basin Plan Beneficial Uses**

| Discharge Point | Receiving Water | Beneficial Use(s) |
|---|---|---|
| 001 ( = Hyperion Treatment Plant Discharge Point 002) | Pacific Ocean Offshore Zone | Existing:<br>Industrial process water (IND); navigation (NAV); water contact recreation (REC1); non-water contact recreation (REC2); commercial and sport fishing (COMM); marine habitat (MAR); wildlife habitat (WILD); rare, threatened, or endangered species (RARE), migration of aquatic organisms (MIGR), spawning, reproduction, and/or early development (SPWN), and shellfish harvesting (SHELL).<br>Potential:<br>None. |

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 ocean waters of the State. The Basin Plan, however, may contain additional water quality objectives applicable to the Discharger.

**2. Thermal Plan.** 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) on May 18, 1972, and amended this plan on September 18, 1975. This Thermal Plan contains temperature objectives for coastal waters. The requirements of this Order/permit implement the Thermal Plan.

**3. Integrated Report.** The State Water Board proposed the California 2010 Integrated Report from a compilation of draft Regional Water Board 2008 Integrated Reports containing 303(d) List of Impaired Waters and 305(b) Reports, following Regional Water Board recommendations and information solicited from the public and other interested parties. On August 4, 2010, the State Water Board adopted California's 2010 Integrated Report. On November 12, 2010, the USEPA approved California's 2010 Integrated Report Section 303(d) List of Impaired Waters for the Los Angeles Region. The Santa Monica Bay and nearby locations are on the 303(d) List for the following pollutants:

a. Santa Monica Bay Offshore and Nearshore – Calwater Watershed No. 40513000

   Pollutants – Dichlorodiphenyltrichloroethane (DDT) (tissue & sediment); debris; fish consumption advisory; polychlorinated biphenyls (PCBs) (tissue & sediment); and sediment toxicity (centered on Palos Verdes Shelf).

b. Santa Monica Bay Beaches – Calwater Watershed No. 40513000

   Pollutants – Indicator bacteria.

4. **Total Maximum Daily Loads (TMDLs).** A TMDL is a determination of the amount of a pollutant, from point, nonpoint, and natural background sources, including a margin of safety, which may be discharged to a water quality-limited water body. Section 303(d) of the CWA established the TMDL process. The statutory requirements are codified at 40 CFR 130.7. TMDLs must be developed for the pollutants of concern which impact the water quality of water bodies on the 303(d) list.

   A 13-year schedule for development of TMDLs in the Los Angeles Region was established in a consent decree approved on March 22, 1999 (Heal the Bay Inc., et al. v. Browner, et al. C 98-4825 SBA) (United States District Court, Northern District of California, 1999). In compliance with the consent decree, a TMDL for bacterial indicators at Santa Monica Bay Beaches became effective on July 15, 2003. A TMDL for debris was adopted by the Regional Water Board on November 4, 2010, and will become effective upon approval by the State Water Board, Office of Administrative Law, and USEPA. TMDLs for listings of DDT, debris, fish consumption advisory, PCBs, and sediment toxicity for the Santa Monica Bay Offshore and Nearshore are expected to be completed by January 1, 2019.

   Applicable waste load allocations specified for each TMDL for the HTP outfalls have been incorporated into HTP's 2010 Order/Permit and do not need to be incorporated into this Order/Permit.

5. **Ocean Plan.** The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (hereinafter Ocean Plan) in 1972. The State Water Board adopted the most recent amended Ocean Plan on September 15, 2009. The Office of Administration Law approved it on March 10, 2010. On October 8, 2010, USEPA approved the 2009 Ocean Plan. The Ocean Plan is applicable, in its entirety, to ocean waters of the State. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

**Table F-7. 2009 Ocean Plan Beneficial Uses**

| Discharge Point | Receiving Water | Beneficial Use(s) |
|---|---|---|
| 001 (Hyperion Treatment Plant Discharge Point 002) | Pacific Ocean | IND, REC1 and REC2 including aesthetic enjoyment, NAV, COMM, mariculture; preservation and enhancement of designated Area of Special Biological Significance (ASBS), RARE, MAR, MIGR, SPWN, and SHELL. |

   In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order/Permit implement the 2009 Ocean Plan.

6. **Santa Monica Bay Restoration Plan.** The authorized discharge of brine waste is to Santa Monica Bay, one of the most heavily used recreational areas

in California. Recognizing the importance of Santa Monica 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 Santa Monica Bay. The Regional Water Board plays a lead role in 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 Santa Monica Bay.

7. **Alaska Rule.** USEPA has revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes (40 CFR 131.21; 65 Fed. Reg. 24641; (April 27, 2000)). Under the revised regulation (also known as the 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 they are approved by USEPA.

8. **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 total suspended solids (TSS), oil and grease, settleable solids, turbidity, and pH. These technology-based pollutant restrictions implement the minimum, applicable technology-based requirements in Table A of the 2009 Ocean Plan and are discussed in the Fact Sheet.

   Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and water quality objectives contained in the Basin Plan, Ocean Plan, and Thermal Plan have been approved under State law and by USEPA. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's/Permit's restrictions on individual pollutants are no more stringent than required to implement the CWA.

9. **Antidegradation Policy.** 40 CFR 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy and requires that existing water quality be

maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies.

Although this Order/Permit is authorizing an increased discharge up to 5.2 MGD (from 4.5 MGD), it is unlikely that this increased discharge will significantly impact water quality in the vicinity of the HTP "five-mile outfall". The 0.7 MGD increase in flow is less than a 0.3% increase in combined total flow out of the outfall and is likely to have no more than a de minimus impact on receiving waters. All concentration-based effluent limits are at least as stringent as the previous Order/Permit and are written to comply with all applicable water quality standards. Therefore, the permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.

10. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Some mass emission effluent limitations in this Order/Permit are less stringent that those in the previous Order/Permit. As discussed in the Fact Sheet this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

11. **Endangered Species Act (ESA).** 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 United State Code (USC) 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 ESA.

12. **Monitoring and Reporting.** 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

13. **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.

14. **Federal Permit Renewal Contingency.** The Discharger's federal NPDES permit renewal is consistent with the: (1) Magnuson-Stevens Fishery Conservation and Management Act (MSA); (2) federal Endangered Species Act (ESA); (3) Coastal Zone Management Act (CZMA); and (4) applicable State water quality standards.

    In May 2010, USEPA requested updated information from the NOAA National Marine Fisheries Service and U.S. Fish and Wildlife Service related to essential fish habitat and managed and associated species, and threatened and endangered species and their designated critical habitats, in the vicinity of the Hyperion Treatment Plant outfalls. (USEPA is evaluating whether there are effects from the Hyperion Treatment Plant discharge on habitat or species protected under the MSA or ESA.) The West Basin discharge is less than two percent of the total discharge from the Hyperion Treatment Plant "five-mile outfall". At the critical initial dilution of 84:1 for this outfall, the combined Hyperion Treatment Plant-West Basin effluent discharge shows no chronic toxicity. Based on this information, USEPA has concluded that the West Basin discharge has no effect on species or habitat protected under the MSA or ESA. On July 5, 2010, California Coastal Commission staff communicated to USEPA staff that it is not necessary for USEPA to obtain a consistency certification pursuant to the CZMA for issuance of the federal NPDES permit for the West Basin discharge.

15. **401 Certification.** The Regional Water Board has determined that its joint issuance of this NPDES permit with USEPA serves as its certification under section 401 of the CWA that any discharge pursuant to this permit will comply with CWA provisions at 33 USC 1311, 1312, 1313, 1316, and 1317.

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

See Section III.C.1.b of the Fact Sheet.

## E. Other Plans, Polices and Regulations

1. **Storm Water.** CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR 122.26 that established requirements for storm water discharges under NPDES. To facilitate compliance with federal regulations, on November 1991, the State Water Board issued a statewide general permit, General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities. This permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order No. 97-03-DWQ to regulate storm water discharges associated with industrial activity.

The Discharger has developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP), to comply with State Water Board Order No. 97-03-DWQ.

2. **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, while balancing economic and environmental impacts within a hydrologically defined drainage basin or watershed. The WMA 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 fosters implementation of this approach. Information about Santa Monica Bay Watershed Management Area can be obtained from the Regional Water Board's web site at http://www.waterboards.ca.gov/losangeles by clicking on the word "Watersheds".

## IV. 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 in the Code of Federal Regulations: 40 CFR 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR 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 receiving waters. 40 CFR 122.44(d) also specifies that WQBELs may be established using: (1) USEPA criteria guidance under CWA section 304(a); (2) proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information; or (3) an indicator parameter. NPDES regulations require WQBELs for any pollutant that causes, has the reasonable potential to cause, or contributes to the exceedance of a receiving water quality criterion or objective.

Mass-based effluent limitations are established to ensure that proper treatment, and not dilution, is employed to comply with effluent concentration limitations. 40 CFR 122.45(f)(1) requires that all permit limitations, standards, or prohibitions be expressed in terms of mass, except under the following conditions: (1) for pH, temperature, radiation, or other pollutants that cannot appropriately be expressed by mass limitations; (2) when applicable standards or limitations are expressed in terms of other units of measure; or (3) if in establishing a technology-based permit limitation on a case-by-case basis, a limitation based on mass is infeasible because the mass of the pollutant cannot be related to a measure of operation, although the limitation must ensure that dilution will not be used as a substitute for treatment.

## A. Discharge Prohibitions

The Order/Permit authorizes the discharge of brine waste through Discharge Point 001 (Hyperion Treatment Plant "five-mile outfall"). The discharge prohibitions are based on requirements of the 2009 Ocean Plan, CWC, and previous Order/Permit provisions, and are consistent with the requirements set for other discharges to the Pacific Ocean regulated under NPDES permits.

## B. Technology-Based Effluent Limitations

### 1. Scope and Authority

Section 301(b) of the CWA and implementing regulations at 40 CFR 122.44 require that NPDES permits include effluent limitations and conditions which meet applicable technology-based requirements, at minimum, and any more stringent effluent limitations necessary to achieve water quality standards and state requirements. The discharge authorized by this Order/Permit must meet applicable minimum federal technology-based requirements based on several levels of control:

a. Best practicable treatment control technology (BPT) represents the average of the best performance by well operated plants within an industrial category. BPT standards apply to toxic, conventional, and nonconventional pollutants.

b. Best available technology economically achievable (BAT) represents the very best control and treatment measures that have been or are economically achievable within an industrial category. BAT standards apply to toxic and nonconventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the very best control and treatment measures that have been or are economically achievable within an industrial category. BCT standards apply to conventional pollutants.

d. New source performance standards (NSPS) represent the best available demonstrated control technology, process, operating methods, or other alternatives, including where practicable, standards permitting no discharge of pollutants. The intent of NSPS is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop national technology-based standards of performance representing the application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for industrial facilities. Where BPJ is used, the permit writer must consider factors outlined in 40 CFR 125.3.

### 2. Applicable Technology-Based Effluent Limitations

At the time of drafting of this Order/Permit, no ELGs applicable to the Discharger's permitted waste stream have been developed. The technology-based effluent limitations in this Order/Permit are established in accordance with 40 CFR 125.3 and based on Table A of the 2009 Ocean Plan (see Table 8). These technology-based effluent limitations apply directly to the Discharger's total effluent:

**Table F-8. Summary of Technology-Based Effluent Limitations (2009 Ocean Plan)**

| Constituent | Effluent Limitations | | | | |
|---|---|---|---|---|---|
| | Average Monthly[4] | Average Weekly[4] | Maximum Daily | Instantaneous Minimum[4] | Instantaneous Maximum[4] |
| Oil & Grease | 25 mg/L | 40 mg/L | -- | 75 mg/L | -- |
| TSS | 60[8] mg/L | -- | -- | -- | -- |
| Settleable Solids | 1.0 ml/L | 1.5 ml/L | -- | 3.0 ml/L | -- |
| Turbidity | 75 NTU | 100 NTU | -- | 225 NTU | -- |
| pH | -- | -- | -- | 6.0 | 9.0 |

## C. Water Quality-Based Effluent Limitations (WQBELs)

### 1. Scope and Authority

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

The Ocean Plan procedures for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of receiving waters and achieve applicable water quality objectives and criteria. The specific procedures for determining reasonable potential for discharges from the Facility, and if necessary for calculating WQBELs, are contained in Appendix VI and Chapter III of the 2009 Ocean Plan.

[8] Notes for Table A of the Ocean Plan state, for Suspended Solids: Dischargers shall, as a 30-day average, remove 75% of suspended solids 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. Because the monthly average effluent limitation for suspended solids has been established as 60 mg/L, the Discharger is not required to remove 75% of influent suspended solids before discharging wastewaters to the ocean.

## 2. Applicable Beneficial Uses and Water Quality Objectives and Criteria

The Basin Plan and the 2009 Ocean Plan designate the beneficial uses for ocean waters of the State. The beneficial uses of 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, as amended by Resolution No. 01-018, contains bacteria objectives for water bodies designated for water contact recreation. Some narrative and numeric water quality objectives from the Basin Plan and Ocean Plan are expressed as receiving water limitations in this Order/Permit.

Table B of the Ocean Plan includes numeric water quality objectives for toxic and non-conventional pollutants:

a. 6-month median, daily maximum, and instantaneous maximum objectives for 21 chemicals and chemical characteristics 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.

d. Daily maximum objectives for acute and chronic toxicity for the protection of marine aquatic life.

## 3. Determining the Need for WQBELs

In accordance with 40 CFR 122.44(d)(1), the Regional Water Board and USEPA evaluated the need for WQBELs based on water quality objectives contained in Table B of the Ocean Plan and alternative statistical procedures for determining the “reasonable potential” for a discharged pollutant to exceed a water quality objective as provided by Appendix VI of the Ocean Plan. According to the RPA procedure in the Ocean Plan, the RPA can yield three endpoints:

a. Endpoint 1, an effluent limitation is required and monitoring is required;

b. Endpoint 2, an effluent limitation is not required and monitoring may be required; and

c. Endpoint 3, the RPA is inconclusive, monitoring is required, and an existing effluent limitation may be retained, or a permit reopener clause may be included to allow inclusion of an effluent limitation if future monitoring warrants the inclusion.

The Regional Water Board and USEPA conducted a RPA for all parameters in Table B of the Ocean Plan, using West Basin effluent monitoring data from September 2006 through June 2011. Minitab 14 software was used to calculate a one-sided upper confidence bound (95% for the 95$^{th}$ population percentile) to estimate the maximum West Basin effluent value for each pollutant. Projected receiving water values were calculated (based on either the estimated, or reported, maximum effluent value and minimum probable initial dilution of 84:1) and compared with the appropriate water quality objective to determine the potential for an exceedance of that objective and the need for an effluent limitation. For the West Basin effluent, this approach to RPA is conservative because it does not consider the dilution that occurs when the West Basin and Hyperion Treatment Plant effluents mix inside the HTP "five-mile outfall". This RPA approach showed no any constituents other than ammonia with reasonable potential to exceed water quality objectives. This RPA approach identified only ammonia as possibly showing reasonable potential to exceed water quality objectives. Consequently, the Regional Water Board and USEPA conducted another RPA for ammonia that considers the dilution that occurs when the West Basin and Hyperion Treatment Plant effluents mix inside the HTP "five-mile outfall". As a result, the Regional Water Board and USEPA determined that the West Basin effluent, when discharged through Discharge Point 001, demonstrates reasonable potential to exceed Ocean Plan objectives for ammonia. All other Ocean Plan Table B parameters either did not demonstrate reasonable potential and numeric effluent limitations are not prescribed, or the demonstrations were inconclusive. A discharge prohibition to comply with all Ocean Plan objectives is specified for the West Basin effluent, including these parameters.

Taking into consideration the very large dilution credit for the HTP "five-mile outfall" (84:1), the temperature effluent limitation for the West Basin discharge continues to be set at 100°F, based on the Thermal Plan and best professional judgment. An effluent limitation for radioactivity is established based on the Ocean Plan and best professional judgment.

### 4. WQBEL Calculations

The West Basin effluent undergoes two mixing events during discharge to the Pacific Ocean. The first mixing event occurs when the West Basin and Hyperion Treatment Plant effluents combine and mix inside the HTP "five-mile outfall". The second mixing event occurs immediately following discharge of the combined effluents from the HTP "five-mile outfall" to the Pacific Ocean. Because the West Basin effluent undergoes two mixing events during discharge, both mixing events are considered when developing WQBELs for ammonia.

**Second Mixing Event Calculation**

The first step is to calculate the ammonia effluent concentrations allowed by the 84:1 dilution provided by the Hyperion Treatment Plant "five-mile outfall", using the following equation:

**Ce = Co + Dm (Co - Cs)**

Where:
Ce = effluent limitation
Co = water quality objective to be met at the completion of initial dilution
Cs = background seawater concentration
Dm = minimum probable initial dilution expressed as parts seawater per part wastewater

The minimum probable initial dilution (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. The State Water Board has determined that Dm for the Hyperion Treatment Plant "five-mile outfall" is 84:1 As site-specific water quality data are not available, Cs equals zero for ammonia.

The ammonia effluent concentrations allowed by the 84:1 dilution for the HTP "five-mile outfall" are calculated as follows.

Water quality objectives from the 2009 Ocean Plan:

**Table F-9. Ocean Plan Objectives for Ammonia**

| Constituent | 6-Month Median | Daily Maximum | Instantaneous Maximum |
|---|---|---|---|
| Ammonia (as N) | 0.6 mg/L | 2.4 mg/L | 6.0 mg/L |

Using the equation, **Ce = Co + Dm (Co - Cs)**, effluent limitations based only on the dilution offered by the HTP "five-mile outfall" are:

Ce = 0.6 + 84 (0.6 – 0) = 51 mg/L (6-month median)
Ce = 2.4 + 84 (2.4 – 0) = 204 mg/L (daily maximum)
Ce = 6 + 84 (6 – 0) = 510 mg/L (instantaneous maximum)

**Table F-10. Ammonia ECA Based on Dm = 84:1 (Second Mixing Event)**

| Pollutant | 6-Month Median | Daily Maximum | Instantaneous Maximum |
|---|---|---|---|
| Ammonia (as N) | 51 mg/L | 204 mg/L | 510 mg/L |

**First Mixing Event Calculation and Final WQBELs**

The second step is to calculate the final ammonia effluent concentrations allowed by the dilution provided when the West Basin and Hyperion Treatment Plant effluents combine and mix inside the HTP "five-mile outfall". Dilution that occurs during this mixing event considers new effluent and flow data for HTP and increased West Basin capacity, providing a conservative result that protects water quality. Hyperion Treatment Plant effluent data from September 2006 through June 2011 were reviewed for this analysis.

Hyperion Treatment Plant's lowest monthly average flow value (253.9 MGD, September 2010) and West Basin's new maximum discharge flow value (5.2 MGD) were chosen to represent the worst case flow scenario during the first mixing event. The flow ratio of Hyperion Treatment Plant effluent to West Basin effluent results in a conservative dilution ratio representing the simultaneous low-flow condition from Hyperion Treatment Plant and maximum permitted flow condition from West Basin. These flows (253.9 MGD : 5.2 MGD) result in a conservative dilution factor of 48.8 for the first mixing event.

Hyperion Treatment Plant effluent data were also used to identify the maximum concentration for ammonia (44.1 mg/L) and Minitab 14 software was used to calculate the one-sided upper confidence bound (95% for the $95^{th}$ population percentile) of 44.83 mg/L for the Hyperion Treatment Plant effluent. Based on this analysis, 44.83 mg/L represents a conservative ammonia background concentration for the Hyperion Treatment Plant effluent.

These inputs are used to calculate final WQBELs for ammonia, which consider the dilution provided by the two mixing events. The Ocean Plan formula, $Ce = Co + Dm (Co - Cs)$, is again used, but the variables are revised to account for the dilution that occurs inside the HTP "five-mile outfall". Co is set equal to the previously calculated ammonia effluent concentrations allowed by the 84:1 dilution for the HTP "five-mile outfall". Dm is set equal to the dilution factor (48.8) calculated for the first mixing event. Cs is set equal to the critical background concentration for ammonia calculated for the Hyperion Treatment Plant effluent (44.83 mg/L).

$Ce = 51 + 48.8 (51 - 44.83) = 352.1$ mg/L $\cong$ 350 mg/L (6-Month Median)
$Ce = 204 + 48.8 (204 - 44.83) = 7{,}971.5$ mg/L $\cong$ 7,970 (Daily Maximum)

## 5. Final WQBELs

Final WQBELs for ammonia are based on the water quality objectives in the 2009 Ocean Plan, the critical initial dilution provided by the HTP "five-mile outfall", and the conservative dilution provided by the Hyperion Treatment Plant effluent inside the HTP "five-mile outfall". A summary of WQBELs are shown below.

**Table F-11. Summary of WQBELs for Discharge Point 001**

| Parameter | Units | 6-Month Median | Daily Maximum |
|---|---|---|---|
| Ammonia (as N) | mg/L | 350 | 7,970 |

## D. Final Effluent Limitations

Section 402(o) of the CWA and 40 CFR 122.44(l) require that effluent limitations and conditions in a reissued NPDES permit be at least as stringent as those in the existing permit. Technology-based effluent limitations for oil and grease, total suspended solids, settleable solids, turbidity, and pH are as stringent as those in the existing Order/Permit. WQBELs for ammonia are more stringent than those in the existing Order/Permit. An effluent limitation for temperature is established based on the requirements of the Thermal Plan and best professional judgment. This Order/Permit authorizes a de minimus increase in mass emissions from the Facility to accommodate the Phase V expansion. An effluent limitation for radioactivity is established based on best professional judgment. A summary of WQBELs are shown in Table F-12.

### 1. Mass-based Effluent Limitations

Mass-based effluent limitations are established using the following formula:

Mass = flow rate x 8.34 x effluent limitation
where: Mass = mass limitation for a pollutant (lbs/day)
Effluent limitation = concentration limitation for pollutant (mg/L)
Flow rate = discharge flow rate (MGD)

**Table F-12. Summary of Final Effluent Limitations for Discharge Point 001**

| Parameter | Units | Effluent Limitations | | | | | | Basis |
|---|---|---|---|---|---|---|---|---|
| | | 6-Month Median[4] | Average Monthly[4] | Average Weekly[4] | Maximum Daily[4] | Instan-taneous Minimum[4] | Instan-taneous Maximum[4] | |
| Oil and Grease | mg/L | -- | 25 | 40 | -- | -- | 75 | Ocean Plan |
| | lbs/day[9] | -- | 1,080 | 1,730 | -- | -- | 3,250 | |
| Total Suspended Solids | mg/L | -- | 60 | -- | -- | -- | -- | Ocean Plan |
| | lbs/day[11] | -- | 2,600 | -- | -- | -- | -- | |
| | % removal | -- | 75 | -- | -- | -- | -- | |
| Settleable Solids | ml/L | -- | 1.0 | 1.5 | -- | -- | 3.0 | Ocean Plan |
| Turbidity | NTU | -- | 75 | 100 | -- | -- | 225 | Ocean Plan |
| pH | standard units | -- | -- | -- | -- | 6.0 | 9.0 | Ocean Plan |
| Temperature | °F | -- | -- | -- | 100 | -- | -- | Ocean Plan |
| Ammonia (as N) | mg/L | 350 | -- | -- | 7,970 | -- | -- | Ocean Plan |
| | lbs/day[11] | 15,270 | -- | -- | 345,700 | -- | -- | Ocean Plan |

[9] Based on the maximum brine waste flow of 5.2 MGD, authorized by this Order/Permit.

# V. RATIONALE FOR RECEIVING WATER LIMITATIONS

## A. Surface Waters

The Basin Plan and Ocean Plan contain numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (40 CFR 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in the tentative Order/Permit are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan and Ocean Plan.

# VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

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

## A. Influent Monitoring

Not applicable.

## B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with Order/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, based on 40 CFR 122.44(i), 122.62, 122.63, and 124.5. The Monitoring and Reporting Program is a standard requirement in almost all NPDES permits (including the proposed Order/Permit) issued by the Regional Water Board and USEPA. In addition to containing definition of terms, it specifies general sampling/analytical protocols and requirements for reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the CWC, and Regional Water Board USEPA policies. The Monitoring and Reporting Program contains a sampling program specific to the Discharger's Facility. 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 is required as shown in the proposed Monitoring and Reporting Program (Attachment E) and as required by the Ocean Plan.

Effluent monitoring in this Order/Permit follows the effluent monitoring requirements in the existing Order/Permit.

**Table F-13. Monitoring Frequency Comparisons**

| Parameter | Monitoring Frequency (Order No. R4-2006-0067) | Monitoring Frequency (Order No. R4-2012-0026) |
|---|---|---|
| Total brine waste flow | Continuous | Continuous |
| Salinity | Monthly | Monthly |
| Turbidity | Monthly | Monthly |
| Temperature | Monthly | Monthly |
| pH | Monthly | Monthly |
| Settleable solids | Monthly | Monthly |
| Suspended solids | Monthly | Monthly |
| Oil and grease | Monthly | Monthly |
| Ammonia nitrogen | Monthly | Monthly |
| Remaining pollutants in Table B of the Ocean Plan (except chronic and acute toxicity) | Semiannually | Semiannually |

The previous monitoring data for these pollutants indicate that the discharge did not demonstrate reasonable potential to exceed water quality standards and the monitoring frequencies remain unchanged.

### C. Receiving Water Monitoring

#### 1. Surface Waters

Receiving water monitoring requirements have not been established in the Monitoring and Reporting Program. Receiving water monitoring is currently conducted under the Hyperion Treatment Plant Order/Permit for receiving waters surrounding the Hyperion Treatment Plant outfalls, and data to determine receiving water quality in relation to receiving water limitations will continue to be readily available. The Discharger is encouraged to participate and contribute to the receiving water monitoring conducted by Hyperion.

This Order/Permit may be reopened and modified by the Regional Water Board Executive Officer and USEPA to incorporate regional monitoring requirements applicable to the Discharger.

## VII. RATIONALE FOR PROVISIONS

### A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of NPDES permits in accordance with 40 CFR 122.42, are provided in Attachment D to the Order/Permit.

## B. Special Provisions

### 1. Reopener Provisions

This provision is based on 40 CFR part 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include 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 Basin Plan and the 2009 California Ocean Plan. 40 CFR 122.41(a) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions are incorporated into this Order/Permit, expressly.

### 2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Chronic Toxicity Monitoring Studies.** Implementing provisions for the chronic toxicity water quality objective in Table B of the Ocean Plan specifies chronic toxicity monitoring requirements for ocean discharges with a minimum initial dilution of <100:1. In 2006, no chronic toxicity monitoring data were available for the combined ocean discharge of West Basin brine waste effluent and Hyperion Treatment Plant undisinfected secondary treated effluent to receiving waters. Although the West Basin effluent is subject to two mixing events and this overall dilution is considered when evaluating chronic toxicity, a review of chronic toxicity levels in the Hyperion Treatment Plant effluent suggested the potential for limited assimilative capacity and dilution of the West Basin discharge. Therefore, Order No. R4-2006-0067 required the Discharger, in coordination with the City of Los Angeles, to conduct a 14-month chronic toxicity monitoring study every other month to simulate and evaluate chronic toxicity levels of the combined West Basin and Hyperion Treatment Plant effluents following critical initial dilution with receiving waters. The results of the Discharger's 2007-2008 study showed no chronic toxicity observed at the critical concentration (In-Stream Waste Concentration, IWC) of 1.190% for the combined effluent discharge, indicating compliance with the chronic toxicity objective in Table B of the Ocean Plan.

During the term of this Order/Permit, West Basin's water reclamation plant will expand to Phase V operations and discharge up to 5.2 MGD of brine waste—15.6% more than that authorized for discharge during Phase IV operations conducted under the 2006 Order/Permit. A review of chronic toxicity levels in the Hyperion Treatment Plant effluent continues to suggest the potential for brief periods of limited assimilative capacity and dilution of the West Basin effluent, with a maximum measured value of 142.9 TUc that exceeded the City's daily maximum WQBEL of 84 TUc (see July 2005 to July 2009 effluent data summary in 2010 Order/Permit for Hyperion Treatment Plant). Based on this information, the Regional

Water Board and USEPA expect effluent quality at both treatment plants to continue to change in response to: residential, commercial and industrial activities in the Hyperion Treatment Plant collection system; treatment optimization at these facilities; and changes in pollutant loadings resulting from water reclamation. Consequently, the effect of this addition of brine waste on the chronic toxicity of the combined West Basin and Hyperion Treatment Plant effluents discharged through the HTP "five-mile outfall" will again be investigated. Upon completion of the Phase V expansion project, the Discharger will conduct a 14-month chronic toxicity monitoring study every other month to review the impact of the combined effluents on chronic toxicity, as specified in Section V of the Monitoring and Reporting Program (Attachment E).

Reporting of chronic toxicity monitoring study results also incorporates the Test of Significant Toxicity hypothesis testing approach described in the USEPA whole effluent toxicity testing guidance document, *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010). This toxicity assessment and reporting approach is currently rerquired in NPDES permits directly issued and administered by USEPA Region 9. As this permit is jointly issued by USEPA and the Regional Water Board, this reporting requirement has been added.

### 3. Best Management Practices and Pollution Prevention

The objective of this Order/Permit is to protect the beneficial uses of receiving waters.

a. To meet this objective, this Order/Permit requires the Discharger to develop and implement an updated SWPPP and address storm water runoff to the storm drain that discharge to waters of the State. This is consistent with the SWPPP requirements in the NPDES General Permit for Storm Water Discharges Associated with Industrial Activity (State Water Board Order No. 97-03-DWQ, NPDES Permit No. CAS000001). A SWPPP outlines site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters. This provision is based on 40 CFR 122.44(k) and includes the requirement to develop a SWPPP.

   The Discharger uses, stores, and handles materials, chemicals, and wastes at the Facility, and conducts operational and maintenance activities to its Facility and equipment that are potential or existing sources of pollutants in wastewater discharged from the facility to receiving waters. Therefore, this Order/Permit requires the Discharger to develop and implement an updated BMPP that includes site-specific plans, procedures, and practices to minimize the amount of pollutants entering wastewater discharges from materials being stored and activities being conducted

throughout the Facility. To ensure the Discharger considers and implements appropriate and effective BMPs, the discharger is required to consider implementing BMPs contained in Guidance Manual for Developing Best Management Practices (BMPs) (EPA 833-B-93-004), or equivalent alternatives when developing its BMPP.

This Order/Permit also requires the Discharger to develop and implement a Spill Contingency Plan to control discharge of pollutants. This provision is included in this Order/Permit to minimize and control the amount of pollutants discharged in case of a spill. This will ensure compliance with the Order/Permit and protect the beneficial uses of State waters.

b. Pollutant Minimization Program.

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

**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**

Sludge and Biosolids Management. Section 405 of the CWA and implementing regulations at 40 CFR 503 require that producers of sewage sludge 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 and biosolids management requirements which are applicable to the discharger.

## VIII. PUBLIC PARTICIPATION

The Regional Water Board and USEPA are considering reissuance of State waste discharge requirements (WDR) and a federal NPDES permit for the Edward C. Little Water Recycling Plant. As a step in this reissuance process, Regional Water Board and USEPA staff have developed a tentative WDR and NPDES permit. The Regional Water Board and USEPA encourage public participation in this reissuance process.

### A. Notification of Interested Parties

The Regional Water Board and USEPA have notified the Discharger and interested agencies and persons of their intent to jointly issue waste discharge requirements and a federal NPDES permit for the discharge, and have provided an opportunity to submit written and oral comments and recommendations by the close of the Regional Water Board/USEPA joint public hearing during the regular Board meeting on **December 8, 2011**. Notification was provided through the local newspaper, *South Bay Daily Breeze,* on **October 14, 2011**.

The tentative Order/Permit has been posted on the Regional Water Board's website at http://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/ and USEPA's website at http://www.epa.gov/region09/water/npdes/pubnotices.html.

## B. Written Comments

The Regional Water Board and USEPA staff determinations are tentative. Interested persons are invited to submit written comments concerning the tentative Order/Permit. To facilitate consideration by the Regional Water Board and USEPA, written comments should be received at Regional Water Board and USEPA offices by 5:00 p.m. on **November 14, 2011**. However, written and oral comments will be accepted until the close of the Regional Water Board/USEPA joint public hearing on **December 8, 2011**.

Written comments should be submitted either in person or by mail to:

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

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

## C. Public Hearings

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, at the following time and location:

| | |
|---|---|
| Date: | December 8, 2011 |
| Time: | 9:00 a.m. |
| Location: | Metropolitan Water District of Southern California, Board Room<br>700 North Alameda Street<br>Los Angeles, California |

Interested persons are invited to attend. At this public hearing, the Regional Water Board and USEPA will hear testimony pertinent to the discharge, tentative WDR, and NPDES permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing. Written and oral comments will be accepted until the close of the Regional Water Board/USEPA joint public hearing on **December 8, 2011**.

In addition, the Regional Water Board will hold a public hearing on the discharge and tentative WDR during the regular Board meeting on the following date, at the following time and location:

Date: February 2, 2012
Time: 9:00 a.m.
Location: Metropolitan Water District of Southern California, Board Room
700 North Alameda Street
Los Angeles, California

Interested persons are invited to attend. However, since the public comment period ends on **December 8, 2011**, oral testimony pertinent to the discharge, tentative WDR, and NPDES permit will not be heard at this public hearing.

Please be aware that dates and venues may change. The Regional Water Board's web address is http://www.waterboards.ca.gov/losangeles/ where interested persons can access the current agenda for changes in Board meeting dates, times, and locations.

## D. State Waste Discharge Requirements Petitions and Federal NPDES Permit Appeals

State waste discharge requirements shall first be adopted by the Regional Water Board and then issued by USEPA as a federal NPDES permit. USEPA's issuance consists of the service of notice of the Regional Administrator's decision. This Order/Permit will become effective 33 days following the issuance date by USEPA, unless a request for review is filed.

Any aggrieved person may petition the State Water Resources Control 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
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

Pursuant to 40 CFR 124, a request for review of the federal NPDES permit decision may be filed with the Environmental Appeals Board (EAB). If a request for review of the federal permit is filed, only those 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 federal permit is mailed to the discharger and must meet the requirements of 40 CFR 124.19. Requests for review should be addressed to the 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
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.

## E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and provisions, comments received, and other information are on file and may be inspected at the Regional Water Board address, above, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576-6600.

## F. Register of Interested Persons

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

## G. Additional Information

Requests for additional information or questions regarding this Order/Permit should be directed to Don Tsai at (213) 576-6665, at the Regional Water Board, and Robyn Stuber at (415) 972-3524, at USEPA.

# ATTACHMENT H

# BIOSOLIDS AND SLUDGE MANAGEMENT

(Note: "Biosolids" refers to non-hazardous sewage sludge, as defined at 40 CFR 503.9. Sewage sludge that is hazardous, as defined at 40 CFR 261, must be disposed of in accordance with the Resource Conservation and Recovery Act (RCRA).)

## I. General Requirements

**A.** All biosolids generated by the Discharger shall be used or disposed of in compliance with applicable portions of Clean Water Act and Safe Drinking Water Act, including: 40 CFR 503—for biosolids that are land applied, placed in a surface disposal site (dedicated land disposal site, monofill, or sludge-only parcel at a municipal landfill), or incinerated; 40 CFR 258—for biosolids disposed of in a municipal solid waste landfill (with other materials); and 40 CFR 257—for all biosolids use and disposal practices not covered under 40 CFR 258 or 503.

40 CFR 503, Subpart B (land application), sets forth requirements for biosolids that are applied for the purpose of enhancing plant growth or for land reclamation. 40 CFR 503, Subpart C (surface disposal), sets forth requirements for biosolids that are placed on land for the purpose of disposal.

The Discharger is responsible for assuring that all biosolids produced at its facility are used or disposed of in accordance with these rules, whether the Discharger uses or disposes of the biosolids itself, or transfers their biosolids to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of requirements they must meet under these rules.

**B.** **Duty to Mitigate.** The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.

**C.** No biosolids shall be allowed to enter wetlands or other waters of the United States.

**D.** Biosolids treatment, storage, use, or disposal shall not contaminate groundwater.

**E.** Biosolids treatment, storage, use, or disposal shall not create a nuisance such as objectionable odors or flies.

**F.** The Discharger shall assure that haulers transporting biosolids off-site for treatment, storage, use, or disposal take all necessary measures to keep the biosolids contained. Trucks hauling biosolids that are not Class A, as defined at 40 CFR 503.32(a), shall be cleaned as necessary after loading and after unloading, so as to have no biosolids on the exterior of the truck or wheels. Trucks hauling biosolids that are not Class A shall be tarped. All haulers must have spill clean-up procedures. Trucks hauling biosolids that are not Class A shall not be used for hauling food or feed crops after unloading the biosolids unless the Discharger submits a hauling

description, to be approved by USEPA, describing how trucks will be thoroughly cleaned prior to adding food or feed.

**G.** If biosolids are stored for over two years from the time they are generated, the Discharger must ensure compliance with all requirements for surface disposal under 40 CFR 503, Subpart C, or must submit a written request to USEPA and the State with the information specified under 40 CFR 503.20(b), demonstrating the need for longer temporary storage. During storage of any length for non-Class A biosolids, whether on the facility site or off-site, adequate procedures must be taken to restrict access by the public and domestic animals.

**H.** Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials to escape from the site. Adequate protection is defined as protection from at least a 100-year storm and the highest tidal stage which may occur.

**I.** There shall be adequate screening at the plant headworks and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inert objects with a diameter greater than 3/8 inches are removed.

**J.** Sewage sludge containing more than 50 mg/kg PCBs shall be disposed of in accordance with 40 CFR 761.

**K.** The Discharger shall ensure compliance with the requirements in State Water Board Order No. 2004-10-DWQ, "General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural and Land Reclamation Activities" for those sites receiving the Discharger's biosolids which a Regional Water Board has placed under this general order, and with the requirements in individual Waste Discharge Requirements (WDRs) issued by a Regional Water Board for sites receiving the Discharger's biosolids.

**L.** The Discharger shall comply, if applicable, with WDRs issued by Regional Water Boards to which jurisdiction the biosolids are transported and applied, and with the State of Arizona's biosolids rule for biosolids transported to Arizona for treatment and/or use.

## II. Inspection and Entry

The Regional Water Board, USEPA, or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Discharger, directly or through contractual arrangements with their biosolids management contractors, to:

**A.** Enter upon all premises where biosolids produced by the Discharger are treated, stored, used, or disposed of, by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.

**B.** Have access to and copy any records that must be kept by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal, under the conditions of this Order/Permit or 40 CFR 503.

**C.** Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in biosolids treatment, storage, use, or disposal by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.

## III. Monitoring

**A.** Biosolids shall be monitored for the following constituents, at the frequency stipulated in Table 1 of 40 CFR 503.16: arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, organic nitrogen, ammonia nitrogen, and total solids. If biosolids are removed for use or disposal on a routine basis, sampling should be scheduled at regular intervals throughout the year. If biosolids are stored for an extended period prior to use or disposal, sampling may occur at regular intervals, or samples of the accumulated stockpile may be collected prior to use or disposal, corresponding to the tons accumulated in the stockpile over that period.

Monitoring shall be conducted using the methods in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), or as otherwise required under 40 CFR 503.8(b). All results must be reported on a 100% dry weight basis and records of all analyses must state on each page of the analytical results whether the reported results are expressed on an “as-is” or a “100% dry weight” basis.

**B.** The Discharger shall sample biosolids twice per year for the pollutants listed under CWA section 307(a) using best practicable detection limits.

For accumulated, previously untested biosolids, the Discharger shall develop a representative sampling plan, which addresses the number and location of sampling points, and collect representative samples.

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

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

**C.** Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with >5 mgd influent flow shall sample biosolids for pollutants listed under Section 307(a) of the Clean Water Act (as required in the pretreatment section of the permit for POTWs with pretreatment programs.) Class 1 facilities and Federal facilities with >5 mgd influent flow shall test dioxins/dibenzofurans using a detection limit of <1 pg/g during their next sampling period if they have not done so within the past 5 years and once per 5 years thereafter.

**D.** The biosolids shall be tested annually, or more frequently if necessary, to determine hazardousness in accordance with California Law.

## IV. Pathogen and Vector Control

**A.** Prior to land application, the Discharger shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed under 40 CFR 503.32.

**B.** Prior to disposal in a surface disposal site, the Discharger shall demonstrate that the biosolids meet Class B levels pathogen reduction levels, or ensure that the site is covered at the end of each operating day.

**C.** For land application (section IV.A) or disposal in a surface disposal site (section IV.B), the following monitoring is required. If pathogen reduction is demonstrated using a "Process to Further Reduce Pathogens" or one of the "Processes to Significantly Reduce Pathogens", the Discharger shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliform and/or pathogens, samples must be collected at the frequency specified in Table 1 of 40 CFR 503.16. If Class B is demonstrated using fecal coliform, at least seven grab samples must be collected during each monitoring period and a geometric mean calculated from these samples. The following holding times between sample collection and analysis shall not be exceeded: fecal coliform—6 hours when cooled to ≤4 degrees C (extended to 24 hours when cooled to <4 degrees C for Class A composted, Class B aerobically digested, and Class B anaerobically digested sample types); Salmonella spp. bacteria—24 hours when cooled to ≤4 degrees C (unless using Method 1682—6 hours when cooled to <10 degrees C); enteric viruses—2 weeks when frozen; helminth ova—one month when cooled to ≤4 degrees C.

**D.** For biosolids that are land applied or placed in a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in under 40 CFR 503.33 (b).

## V. Surface Disposal

If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.

## VI. Landfill Disposal

Biosolids placed in a municipal landfill shall be tested by the Paint Filter Test (SW-846, Method 9095) at the frequency specified in Table 1 of 40 CFR 503.16, or more often if necessary to demonstrate that there are no free liquids.

## VII. Notifications

The Discharger either directly or through contractual arrangements with their biosolids management contractors shall comply with the following notification requirements:

### A. Notification of Non-compliance

The Discharger shall notify USEPA and the State (for both Discharger and use or disposal site) of any non-compliance within 24 hours, if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall notify USEPA and the State of the non-compliance in writing within 5 working days of becoming aware of the non-compliance. The Discharger shall require their biosolids management contractors to notify USEPA and the State of any non-compliance within these same time-frames.

### B. Interstate Notification

If biosolids are shipped to another State or Tribal Land, the Discharger shall send 60 days prior notice of the shipment to the permitting authorities in the receiving State or Tribal Land, and the USEPA Regional Office.

### C. Land Application Notification

Prior to using any biosolids from this facility (other than composted biosolids) at a new or previously unreported site, the Discharger shall notify USEPA and the State. This notification shall include a description and topographic map of the proposed site(s), names and addresses of the applier and site owner, and a listing of any State or local permits which must be obtained. It shall also include a description of the crops or vegetation to be grown, proposed loading rates, and a determination of agronomic rates.

Within a given monitoring period, if any biosolids do not meet the applicable metals concentration limits specified under 40 CFR 503.13, then the Discharger (or its contractor) must pre-notify USEPA, and determine the cumulative metals loading at that site to date, as required by 40 CFR 503.12.

### D. Surface Disposal Notification

Prior to disposal at a new or previously unreported site, the Discharger shall notify USEPA and the State. The notice shall include a description and topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator and site owner, and any State or local permits. It shall also describe procedures for ensuring grazing and public access restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

## VIII. Reporting

The Discharger shall furnish this Regional Water Board with a copy of any report submitted to USEPA, State Water Board or other Regional Water Board, with respect to municipal sludge or biosolids. The Discharger shall submit an annual biosolids report to

the USEPA Region 9 Biosolids Coordinator and the State by February 19 of each year for the period covering the previous calendar year. The report shall include:

**A.** The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.

**B.** Results of all pollutant monitoring required under Monitoring, above. Results must be reported on a 100% dry weight basis.

**C.** Demonstrations of pathogen and vector attraction reduction methods, as required under 40 CFR 503.17 and 503.27, and certifications.

**D.** Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal landfill, deep well injection, or other use or disposal method not covered above, and tonnage delivered to each.

**E.** The following information must be submitted by the Discharger, unless the Discharger requires its biosolids management contractors to report this information directly to the USEPA Region 9 Biosolids Coordinator.

**1.** For land application sites:

Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applier, and site owner.

Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, and calculated plant available nitrogen.

Crops planted, dates of planting and harvesting.

For biosolids exceeding 40 CFR 503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loading at the sites to date.

Certifications of management practices at 40 CFR 503.14.

Certifications of site restrictions at 40 CFR 503(b)(5).

**2.** For surface disposal sites:

Locations of sites, site operator and site owner, size of parcel on which biosolids were disposed.

Results of any required groundwater monitoring.

Certifications of management practices at 40 CFR 503.24.

**3.** For closed sites, the date of site closure and certifications of management practices for three years following site closure.

**F.** All reports shall be submitted to:

Regional Biosolids Coordinator
U.S. Environmental Protection Agency
CWA Compliance Office (WTR-7)
75 Hawthorne Street
San Francisco, CA 94105-3901

Biosolids Program Coordinator
Arizona Department of Environmental Quality
Mail Code: 5415B-1
1110 West Washington Street
Phoenix, AZ 85007