September 18, 2013

Mr. E. Pablo Borgnino
Refinery Manager
ExxonMobil Oil Corporation, Torrance Refinery
3700 West 190th Street
Torrance, CA 90509

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 7008 1830 0004 3359 2197

Dear Mr. Borgnino:

TRANSMITTAL OF THE WASTE DISCHARGE REQUIREMENTS (WDRs) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR EXXONMOBIL OIL CORPORATION, TORRANCE REFINERY (NPDES NO. CA0055387, CI NO. 5742)

Our letters dated July 2, 2013, and August 28, 2013, transmitted the revised tentative waste discharge requirements (WDRs) for renewal of your permit for the discharge of wastes under the National Pollutant Discharge Elimination System (NPDES) Program.

Pursuant to Division 7 of the California Water Code, this Regional Water Board at a public hearing held on September 12, 2013, reviewed the proposed requirements, considered all factors in the case, and adopted Order No. R4-2013-0138 (NPDES permit).

Order R4-2013-0138 serves as an NPDES permit, and it expires on October 12, 2018. Section 13376 of the California Water Code requires that an application/Report of Waste Discharge for a new permit must be filed at least 180 days before the expiration date.

You are required to implement the Montoring and Reporting Program (MRP) on the effective date (October 12, 2013) of Order No. R4-2013-0138. Your first monitoring report for the period of October 2013 through December 2013, is due by February 1, 2014. ExxonMobil will electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) (http://www.waterboards.ca.gov/ciwqs/index.html).

When submitting monitoring or technical reports to the Regional Water Board per these requirements, please include a reference to Compliance File CI-5742 and NPDES No. CA0055387, which will assure that the reports, are directed to the appropriate file and staff.

We are sending the paper copy of the Permit to the Discharger only. For those on the mailing list or other interested parties who would like access to a copy of the Permit, please go to the Regional Water Board's website at:

http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/by_permits_tools.shtml.

If you have any questions, please contact Mazhar Ali at (213) 576-6652.

Sincerely,

Cassandra D. Owens, Chief
Industrial Permitting Unit

Enclosures

cc: Via E-mail Only

Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
U.S. Army Corps of Engineers
NOAA, National Marine Fisheries Service
Department of Interior, U.S. Fish and Wildlife Service
NPDES Wastewater Unit, State Water Resources Control Board, Division of Water Quality
Mr. William Paznokas, Department of Fish and Game, Region 5
Department of Public Health, Sanitary Engineering Section
California State Parks and Recreation
California Coastal Commission, South Coast Region
Los Angeles County, Department of Public Works, Waste Management Division
Los Angeles County, Department of Public Health
Ms. Kirsten James, Heal the Bay
Ms. Liz Crosson, Los Angeles Waterkeeper
Ms. Anna Kheyfets, Natural Resources Defense Council
Ms. Penny Wirsing, ExxonMobil Oil Corp.
Ms. Amy Kim, ExxonMobil Oil Corp.
Ms. Mary Welch, PG Environmental, LLC
Mr. Jae Kim, Tetra Tech

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

320 W. 4th Street, Suite 200, Los Angeles, California 90013
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ORDER NO. R4-2013-0138
NPDES NO. CA0055387

WASTE DISCHARGE REQUIREMENTS FOR EXXONMOBIL OIL CORPORATION TORRANCE REFINERY

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	ExxonMobil Oil Corporation
Name of Facility	Torrance Refinery
Facility Address	3700 West 190th Street
	Torrance, CA 90509
	Los Angeles County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	

The discharge by ExxonMobil Oil Corporation from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Storm water from the Facility and the City of Torrance; commingled with small amounts of steam condensate and process area washwater.	33° 50' 54" N	118° 19' 01" W	Torrance Lateral tributary to the Dominguez Channel

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	**September 12, 2013**
This Order shall become effective on:	**October 12, 2013**
This Order shall expire on:	**October 12, 2018**
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 expiration date**

I, Samuel Unger, Executive Officer, do hereby certify that this Order 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 September 12, 2013.

Chief Deputy E.O.
for Samuel Unger, P.E.
Executive Officer

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	ExxonMobil Oil Corporation
Name of Facility	Torrance Refinery
Facility Address	3700 West 190th Street
	Torrance, CA 90509
	Los Angeles County
Facility Contact, Title, and Phone	Amy Kim, Environmental Advisor, 310-212-3760
Mailing Address	Same as Facility Address
Type of Facility	Petroleum Refinery
Facility Design Flow	Up to 10 million gallons per day (MGD)

II. FINDINGS

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

A. Background. ExxonMobil Oil Corporation (hereinafter Discharger) is currently discharging pursuant to Order No. R4-2007-0049 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0055387. The Discharger submitted a Report of Waste Discharge, received February 1, 2012, and applied for an NPDES permit renewal to discharge up to 10 MGD from the Torrance Refinery (hereinafter Facility).

A site visit was conducted on November 28, 2011, to review current site conditions and operations.

For the purposes of this Order, 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 Discharger owns and operates a petroleum refinery located at 3700 West 190th Street, Torrance, California. Refinery operations include cracking, flashing, coking, hydrotreating, alkylation, reforming, and sulfur recovery. Refinery process wastewater from the Facility is directed to a segregated oily water sewer system that flows to the sanitary sewer under an industrial pretreatment permit issued by the Los Angeles County Sanitation Districts (LACSD), California (Permit Nos. 516 and 1148). The remaining wastewaters generated by the Facility, which consist of storm water commingled with small amounts of steam condensate and process area washwater, and storm water runoff from the Pioneer Watershed, a neighborhood south of the facility within the City of Torrance, are treated for oil removal using absorbent pads and sedimentation within a series of storm water retention basins, followed by filtration through hay bales and discharged to Torrance Lateral through Outfall 001.

The entire site is sloped to the east, so that storm water from non-process areas, drains by gravity to various retention basins, via concrete-lined ditches. In addition, the Facility uses dedicated and portable pumps to manage storm water volumes within the basins. When storm water collects in the tank farm containment areas, the volumes are managed by pumping among the diked areas. Generally, the Discharger pumps storm water from the diked areas to the storm water basins to prevent accumulation of standing water in the tank farm containment areas.

The storm water, commingled with small amounts of steam condensate and process area washwater, is stored and treated through a series of retention ponds and then routed to O'Brien Lake (one of several onsite retention basins). Prior to discharge from O'Brien Lake to the Torrance Lateral, storm water passes through hay filters to remove oil, grease, and other debris. Under most conditions, this wastestream is discharged from O'Brien Lake to a publicly owned treatment works (POTW) through the Van Ness Outfall under LACSD permit No. 516. The discharge to the Torrance Lateral (also

referred to as the Torrance Flood Control Channel, the Torrance Carson Channel, and the Torrance Lateral Channel) and then to the Dominguez Channel occurs only during extended storm events when the storm water storage basins are full, and flooding of the Facility is imminent (the storm event exceeds the 50-year return period, 24-hour storm or an equivalent chronic rainfall event).

C. Legal Authorities. This Order 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 (commencing with section 13370). It 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 Water Code (commencing with Section 13260).

D. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E and G through J are also incorporated into this Order.

E. California Environmental Quality Act (CEQA). Under Water Code Section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code Sections 21100-21177.

F. Technology-based Effluent Limitations. Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, Title 40 of the Code of Federal Regulations[1], require that 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 must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with section 125.3. A detailed discussion of the 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 section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 CFR section 122.44(d)(1)(i) mandates that permits include effluent limitations 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, water quality-based effluent limitations (WQBELs) must be established using:

[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

(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 Part 122.44(d)(1)(vi).

H. Watershed Management Approach and Total Maximum Daily Loads (TMDLs).

The Regional Water Board has implemented the Watershed Management Approach to address water quality issues in the Region. Watershed management may include diverse issues as defined by stakeholders to identify comprehensive solutions to protect, maintain, enhance, and restore water quality and beneficial uses. To achieve this goal, the Watershed Management Approach integrates the Regional Water Board's many diverse programs, particularly NPDES with TMDLs, to better assess cumulative impacts of pollutants from all point and nonpoint sources. A TMDL is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby provides the basis to establish water quality based controls. These controls should provide the pollution reduction necessary for a waterbody to meet water quality standards. This process facilitates the development of watershed-specific solutions that balance the environmental and economic impacts within the watershed. The TMDLs will establish waste load allocations (WLAs) and load allocations (LAs) for point and non-point sources, and will result in achieving water quality standards for the waterbody.

Certain receiving waters in the Los Angeles watershed do not fully support beneficial uses and therefore have been classified as impaired on the 2010 303(d) list and have been scheduled for TMDL development. The USEPA approved the State's 2010 303(d) list of impaired water bodies on November 12, 2010.

The 2010 State Water Resources Control Board (State Water Board) California 303(d) List includes the Torrance Lateral, referred to in the listing as the Torrance Carson Channel. The pollutants/stressors of concern for the Torrance Lateral include coliform bacteria, copper, and lead. The 2010 303(d) List also includes the Dominguez Channel. The pollutants/stressors of concern for the Dominguez Channel include ammonia, benthic community effects, benzo(a)pyrene (3,4-benzopyrene-7-d), benzo(a)anthracene, chlordane (tissue), chrysene (C1-C4), coliform bacteria, dichlorodiphenyltrichloroethane (DDT, tissue and sediment), dieldrin (tissue), lead (tissue), polychlorinated biphenyls (PCBs), phenanthrene, pyrene, sediment toxicity, and zinc (sediment).

The following are summaries of the TMDLs for the Torrance Lateral and the Dominguez Channel.

1. **Bacteria TMDL.** The Regional Water Board approved the Bacteria TMDL through Resolution 2004-011 on July 1, 2004. The State Water Board, Office of Administrative Law (OAL), and USEPA approved the TMDL on October 21, 2004, January 5, 2005, and March 1, 2005, respectively. The Bacteria TMDL addresses

impairment caused by elevated indicator bacteria in the Main Ship Channel and Inner Cabrillo Beach, both located within the Los Angeles Harbor. The Dominguez Channel is a tributary to the Main Ship Channel and was included in the TMDL survey and linkage analyses. Neither the Torrance Lateral nor the Dominguez Channel are specifically addressed through the Bacteria TMDL WLAs; however, because of the hydrologic connection to the Los Angeles Harbor and the 303(d) listing of the Torrance Lateral for bacteria, this Order includes effluent limitations for bacteria that are applicable to discharges to freshwater bodies.

2. **Harbor Toxics TMDL.** The Regional Water Board adopted Resolution No. R11-008 on May 5, 2011, that amended the Basin Plan to incorporate the *TMDL for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbors Waters* (Harbor Toxics TMDL). The Harbor Toxics TMDL was approved by the State Water Board on February 14, 2012; the OAL on March 22, 2012; and USEPA on March 23, 2012. The Harbor Toxics TMDL contains requirements applicable to this discharge. Therefore, this Order contains effluent limitations and monitoring requirements based on the TMDL.

   a. For the Torrance Lateral, the Harbor Toxics TMDL included:

      i. Concentration-based Torrance Lateral freshwater interim wet weather allocations (in µg/L) for copper, lead, and zinc (Attachment A to Resolution No. R11-08, p. 10).

      ii. Concentration-based Dominguez Channel and upstream tributaries final wet weather allocations (in µg/L) for copper, lead, and zinc (Attachment A to Resolution No. R11-08, p. 12).

      iii. Water column interim wet weather chronic toxicity allocation of 2 TUc for freshwater tributaries to the Dominguez Channel (Attachment A to Resolution No. R11-08, p. 10).

      iv. Final wet weather mass-based sediment WLAs (in kg/yr) for copper, lead, and zinc in ExxonMobil discharges (in kg/yr, unfiltered water) (Attachment A to Resolution No. R11-08, p. 13).

      v. Water column final wet-weather chronic toxicity allocations for freshwater tributaries to the Dominguez Channel (Attachment A to Resolution No. R11-08, p. 11).

      vi. Provisions for monitoring discharges and/or receiving waters during the TMDL's 20 year implementation schedule to determine attainment with waste load and load allocations as appropriate.

   The implementation of effluent limitations and conditions included in this Order are consistent with the assumptions and requirements of all waste load allocations included in the Harbor Toxics TMDL.

b. Interim Limits

Interim limits for copper, lead, zinc, and chronic toxicity are included based on Basin Plan Amendment incorporating Harbor Toxics TMDL (Attachment A to Resolution No. R11-008). These interim limits will expire on May 12, 2018.

I. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. 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 (MUN).

The Basin Plan does not currently assign beneficial uses specific to the Torrance Lateral. Federal regulations that address state water quality standards are contained in 40 CFR 131.2 and 131.10 and constitute a rebuttable presumption that beneficial uses supporting the "*fishable, swimmable*" goals of the federal CWA are attainable. Therefore, without evidence to disprove attainability, recreation and aquatic life beneficial uses apply to the Torrance Lateral. The Facility discharges to Torrance Lateral which subsequently discharges to Dominguez ChannelEstuary . Beneficial uses applicable to the Dominguez Channel Estuary are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Dominguez Channel Estuary	Existing: preservation of rare, threatened, or endangered species (RARE), non-contact water recreation (REC-2), water contact recreation (REC-1), commercial and sport fishing (COMM), estuarine habitat (EST), marine habitat (MAR), wildlife habitat (WILD), migration of aquatic organisms (MIGR), and spawning, reproduction, and/or early development of aquatic habitat (SPWN). Potential: navigation

Requirements of this Order implement the Basin Plan.

The discharge from the Facility is comprised primarily of storm water runoff mixed with a small amount of steam condensate and process area washwater. The Facility discharges to the Torrance Lateral, an inland freshwater channel, only during significant storm events. Since the permitted discharge is primarily storm water and indirectly flows to the Dominguez Channel, it is consistent with the Bays and Estuaries Policy. This Order also contains provisions necessary to protect all beneficial uses of the receiving water.

J. 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 (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland and coastal surface waters. The Facility does not directly discharge to the Dominguez Channel Estuary; therefore, the Thermal Plan does not apply.

K. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

L. State Implementation Policy. On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

M. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for 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 approved by USEPA.

N. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on oil and grease, total suspended solids (TSS), settleable solids, turbidity, total petroleum hydrocarbons (TPH), xylene, total organic carbon (TOC), and pH. Restrictions on these constituents are discussed in section IV.B of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

O. Antidegradation Policy. 40 CFR 131.12 requires that the 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 where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of Section 131.12 and State Water Board Resolution No. 68-16.

P. Anti-Backsliding Requirements. Sections 402(o) of the CWA establish statutory language prohibiting backsliding of effluent limits. 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.

Specified effluent limitations in this Order are at least as stringent as effluent limitations in the previous Order.

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

R. Monitoring and Reporting. Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code Sections 13267 and 13383 authorizes 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.

S. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with Section 122.41, and additional conditions applicable to specified categories of permits in accordance with Section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under Section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

T. Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.

U. Provisions and Requirements Implementing State Law. No provisions of this Order are included to implement state law only.

V. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R4-2007-0049 except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the Water Code (commencing with Section 13000) and regulations adopted thereunder, and the provisions of the federal CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. There shall be no discharge from the Facility to the receiving water except for the discharge of storm water runoff from Torrance Refinery and the City of Torrance resulting from heavy rains, and small amounts of steam condensate and process area wash water that are commingled with the storm water. Discharges are allowed only after all storm water storage has been utilized and all steps have been taken to reduce the amount of storm water discharged into the receiving water.

B. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to the Torrance Lateral, the Dominguez Channel, or other waters of the State, are prohibited.

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

D. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.

E. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or the State Water Board as required by the Federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, and amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

F. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

G. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Final Effluent Limitations

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001, as described in the attached Monitoring and Reporting Program (MRP) (Attachment E):

Table 6. Effluent Limitations for Discharge Point No. 001

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	--	10[1]	--	--
Conventional Pollutants					
pH	s.u.	--	--	6.5	8.5
Oil and Grease	mg/L	--	15	--	--
	lbs/day[2]	--	1,300	--	--
Total Suspended Solids (TSS)	mg/L	--	75	--	--
	lbs/day[2]	--	6,300	--	--
E. Coli	MPN/ 100mL	[3]	[8]	--	--
Non-conventional Pollutants					
Acute Toxicity	% survival	[4]			
Carbon, Total Organic (TOC)	mg/L	--	110	--	--
	lbs/day[2]	--	9,200	--	--
Settleable Solids	ml/L	--	0.2	--	--
Temperature	°F	--	--	--	86
TPH[5]	µg/L	--	100	--	--
	lbs/day[2]	--	8.3	--	--
Turbidity	NTU	--	75	--	--
Priority Pollutants					
Chromium (VI), Total Recoverable	µg/L	--	16	--	--
	lbs/day[2]	--	1.3	--	--
Copper, Total Recoverable	µg/L	--	7.3[7]	--	--
	lbs/day[2]	--	0.61[7]	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Lead, Total Recoverable	µg/L	--	2.2[7]	--	--
	lbs/day[2]	--	0.18[7]	--	--
Mercury, Total Recoverable	µg/L	--	0.10	--	--
	lbs/day[2]	--	0.0083	--	--
Nickel, Total Recoverable	µg/L	--	14	--	--
	lbs/day[2]	--	1.2	--	--
Zinc, Total Recoverable	µg/L	--	67[7]		
	lbs/day[2]	--	5.6[7]		
Benzo(a)anthracene	µg/L	--	0.098	--	--
	lbs/day[2]	--	0.0082	--	--
Benzo(a)pyrene	µg/L	--	0.098	--	--
	lbs/day[2]	--	0.0082	--	--
Benzo(b)fluoranthene	µg/L	--	0.098	--	--
	lbs/day[2]	--	0.0082	--	--
Bis (2-Ethylhexyl) Phthalate	µg/L	--	12	--	--
	lbs/day[2]	--	1.0	--	--
Harbor Toxics TMDL Final Wet-weather (Unfiltered) Limitations					
Chronic Toxicity	Chronic Toxic Units	[6]			
Copper, Total Recoverable	kg/yr[9]	1.36			
Lead, Total Recoverable	kg/yr[9]	5.98			
Zinc, Total Recoverable	kg/yr[9]	9.75			

[1] The Discharger is required to maintain an effluent flow of 10 MGD or less, except during an emergency storm event, wherein the rainfall or cumulative rainfalls that are equal to or greater than the 50 year return period, 24-hour storm or an equivalent chronic rainfall event. The Discharger may exceed a 10 MGD discharge to the receiving water, only after all storm water storage has been utilized and all steps have been taken to reduce the amount of storm water discharged into the receiving water. In the event of an emergency storm event discharge (as defined in Attachment A definition), the Discharger shall continue to comply with effluent limitations for all pollutants.

[2] The mass limitations are based on a maximum flow of 10 MGD and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. If the flow is greater than 10 MGD, the mass loading is to be recalculated using the event specific flow.

[3] Applied as geometric mean. See IV.A.d.(See page 17)
[4] See IV.A.1.b.
[5] TPH equals the sum of TPH gasoline (C4-C12), TPH diesel (C13-C22), and TPH oil (C23+)
[6] The chronic toxicity of 100% effluent shall not exceed 1.0 TUc in a critical life stage test. This limit becomes effective May 13, 2018.
[7] Effluent limitations apply during dry weather only. Within this Order, dry-weather is assumed for any discharge that is not a result of precipitation or that is the result of a precipitation event of a magnitude that is less than 63 cubic feet per second (cfs) as measured at station S28 in the Dominguez Channel.
[8] Applied as a single sample maximum. See IV.A.d. (See page 17)
[9] Annual effluent limitations. The mass (kg/yr) limitations were calculated based on a flow of 3.7 MGD for ten days per year and are calculated as follows: Flow volume (millions of gallons) x target concentration (mg/L) x 3.788 gal/L (conversion) x No. of days of discharge. These limits become effective May 13, 2018.

b. Acute Toxicity Limitation Requirements. There shall be no acute toxicity in the discharge. The acute toxicity of the effluent shall be such that:

i. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, and

ii. No single test shall produce less than 70% survival.

Compliance with the toxicity objectives will be determined by the method described in section V of the MRP No. 5742 (Attachment E). The Discharger shall conduct acute toxicity monitoring as specified in the MRP.

c. Chronic Toxicity Limitation and Requirements.

i. This Order includes a chronic toxicity limit defined as an exceedance of 1.0 TUc in a critical life stage test for 100% effluent

ii. If the chronic toxicity of the effluent exceeds 1.0 TUc, the Discharger shall immediately implement accelerated chronic toxicity testing according to the MRP, Section V.K. If the results of two of the six accelerated tests exceed 1.0 TUc, the Discharger shall initiate a Toxicity Identification Evaluation (TIE) and implement the initial investigation Toxicity Reduction Evaluation (TRE) Workplan. (see Order Special Provision VI.C.2.a and MRP No. 5742, Section V.K and V.L).

iii. The Discharger shall conduct chronic toxicity monitoring as specified in the MRP No. 5742.

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

$$TUc = 100/NOEC$$

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

d. Bacteria Limitations.

i. Escherichia Coli (E. Coli)

(i) Geometric Mean

E. Coli density shall not exceed 126/100 ml.

(ii) Single Sample Maximum

E. Coli density shall not exceed 235/100 ml.

The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

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 one single sample limit, values from all samples collected during that 30-day period shall be used to calculate the geometric mean.

2. Interim Effluent Limitations

a. Interim Limits

Regional Water Board Resolution No. R11-008, Attachment A, Interim Allocation 1.B, authorizes interim limits for copper, lead, zinc, and chronic toxicity for discharges to Torrance Lateral. The interim limits for metals included here are based on historical discharge data and they are more stringent than the interim limits specified in the Resolution No. R11-008. The interim limits expire on May 12, 2018, at Discharge outfall EFF-001. ExxonMobil has to comply with the final limits starting May 13, 2018. Discharges from Outfall EFF-001 until May 12, 2018, in excess of the following interim effluent limitations are prohibited:

Table 7. Interim Effluent limitations

Pollutant	Units	Maximum Daily Effluent Limitation
Total copper	µg/L	39.8
Total lead	µg/L	114
Total zinc	µg/L	619
Chronic toxicity	TUc	2

b. Compliance Schedule

ExxonMobil will comply with the following task with the estimated time for completion as proposed in the Discharger's Compliance Plan dated May 13, 2013, to achieve the final limits specified in this Order.

Number	Task	Starting Date	Completion Time
1	Pollution Source identification	October 12, 2013	40 months
2	Review of Outfall Sampling Location and Techniques	October 12, 2013	40 months
3	Review Storm Water Management Practices and Predicted Discharge Frequency	October 12, 2014	14 months
4	Review Discharge Treatment Evaluation	October 12, 2015	12 months

Tasks 1 and 2 will occur concurrently

ExxonMobil will submit to the Executive Officer at the end of each calendar year (December 31, 2014, December 31, 2015, December 31, 2016, and December 31, 2017) a progress report summarizing the progress and completion status of each task.

B. Land Discharge Specifications

Not Applicable

C. Reclamation Specifications

Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in the Dominguez Channel.

1. The normal ambient pH to fall below 6.5 nor exceed 8.5 units nor vary from normal ambient pH levels by more than 0.5 units.

2. Surface water temperature to rise greater than 5^{o} F above the natural temperature of the receiving waters at any time or place. At no time the temperature be raised above 80°F as a result of waste discharged.

3. The waste discharged shall not cause the following bacterial standards to be exceeded in the receiving water:

a. Geometric Mean Limits

i. *E. Coli* density shall not exceed 126/100 ml.

b. Single Sample Maximum

i. *E. Coli* density shall not exceed 235/100 ml.

The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

4. Depress the concentration of dissolved oxygen to fall below 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation.

5. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Resolution No. 2002-011. Resolution No. 2002-011 revised the ammonia water quality objectives for inland surface waters characteristic of freshwater in the 1994 Basin Plan, to be consistent with the *"1999 Update of Ambient Water Quality Criteria for Ammonia"*. Adopted on April 25, 2002, Resolution No. 2002-011 was approved by State Water Board, OAL and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect.

6. There shall be no discharge of floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

7. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water.

8. Suspended or settleable materials, chemical substances, or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.

9. Toxic or other deleterious substances in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

10. Accumulation of bottom deposits or aquatic growths.

11. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

12. The presence of substances that result in increases of BOD that adversely affect beneficial uses.

13. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses.

14. Alteration of turbidity, or apparent color beyond present natural background levels.

15. Damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload the design capacity.

16. Degrade surface water communities and populations including vertebrate, invertebrate, and plant species.

17. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

18. Create nuisance, or adversely affect beneficial uses of the receiving water.

19. Violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board will revise or modify this Order in accordance with such standards.

B. Groundwater Limitations

Not Applicable

VI. PROVISIONS

A. Standard Provisions

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

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

a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of Sections 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

b. 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.

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

d. 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, 318, 405, and 423 of the Federal CWA and amendments thereto.

e. 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.

f. 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.

g. 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.

h. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

i. Violation of any term or condition contained in this Order;

ii. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;

iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

i. 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.

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

k. 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.

l. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Water Board as soon as they know or have reason to believe that they have begun or expect to begin to use or manufacture intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.

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

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

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

o. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.

p. 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 permit.

q. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to the planned discharge of any chemical, other than the products previously reported to the Executive Officer, 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.

r. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

s. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, Average Monthly Effluent Limitation (AMEL), Maximum Daily Effluent Limitation (MDEL), instantaneous, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (216)-576-6652 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

t. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (Water Code § 1211.)

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, and amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

b. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the reasonable potential analysis.

c. This Order may be reopened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the

implementation of the watershed management approach or to include new Minimum Levels (MLs).

d. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for the Dominguez Channel.

e. This Order may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Water Board, to provide for dilution credits or a mixing zone, as may be appropriate.

f. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.

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

a. Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan. The Discharger shall submit to the Regional Water Board an Initial Investigation TRE workplan (1-2 pages) within 180 days of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that acute or chronic toxicity, as defined in the MRP section V.A and B is detected, and should include at a minimum:

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

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

iii. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (section V of the MRP, Attachment E provides references for the guidance manuals that should be used for performing TIEs).

b. Harbor Toxics TMDL Water Column Compliance Monitoring Program.

As defined in the Harbor Toxics TMDL, the Discharger is a "responsible party" because it is an "Individual Industrial Permittee". As such, either individually or with a collaborating group, the Discharger shall develop a monitoring and reporting plan (Monitoring Plan) and quality assurance project plan (QAPP) for the water column in Torrance Lateral. The plans shall follow the "TMDL Element

- Monitoring Plan" provisions in Attachment A to Resolution No. R11-008. The Monitoring Plan and QAPP shall be submitted **20 months** after the effective date of the TMDL (March 23, 2012). Participating in the collaborative water quality monitoring program and submittal of the Monitoring plan and QAPP will constitute compliance with the requirement.

The monitoring program shall include:

i. Water Column Monitoring. Water samples shall be collected at the outlet of the storm drain discharging to the channel During each year in which the Facility Discharges, water samples and total suspended solid (TSS) samples shall be collected during two wet weather events, and one dry-weather event if the Facility discharges only once in that year. The first large storm event of the season shall be included as one of the wet weather monitoring events. If one discharge occurs, only one sampling event is required. Water samples and TSS samples shall be analyzed for a suite of compounds including, at a minimum, lead, zinc, and copper, DDT, PCBs, benzo[a] anthracene, benzo[a]pyrene, chrysene, phenanthrene, and pyrene. Sampling shall be designed to collect sufficient volumes of suspended solids to allow for analysis of the pollutants in the bulk sediment.

In addition to TMDL constituents, general water chemistry (temperature, dissolved oxygen, pH, and electrical conductivity) and a flow measurement will be required at each sampling event. General chemistry measurements may be taken in the laboratory immediately following sample collection, if auto samplers are used for sample collection or if weather conditions are unsuitable for field measurements.

3. Storm Water Pollution Prevention Plan (SWPPP), Best Management Practices Plan (BMPP), and Spill Prevention Control and Countermeasure (SPCC) Plan

The Discharger shall submit to the Regional Water Board, within 180 days of the effective date of this Order:

a. 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 in accordance with the requirements in Attachment G.

b. An updated BMPP that will be implemented to reduce the discharge of pollutants to the receiving water. The BMPP shall include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the state. Further, the Discharger shall assure that the storm water discharges from the Facility would neither cause, nor contribute to the exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water, and that the unauthorized discharges (i.e., spills) to the receiving water have been effectively

prohibited. In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters. The BMPP shall be developed in accordance with requirements in Attachment G.

c. An updated SPCC that includes a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site.

Plans 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 points. The Discharger shall describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material.

The Discharger shall implement the SWPPP, BMPP, and SPCC Plan within 10 days of the approval by the Executive Officer or no later than 90 days after submission to the Regional Water Board, whichever comes first. The SWPPP and the BMPP shall be reviewed annually and at the same time; and the SPCC Plan shall be reviewed once every five years. Updated information shall be submitted to the Regional Water Board within 30 days of revision.

4. Construction, Operation and Maintenance Specifications

a. The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this order.

5. Special Provisions for Municipal Facilities (POTWs Only)

Not Applicable

6. Other Special Provisions

Not Applicable

7. Compliance Schedules

Not Applicable

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. Single Constituent Effluent Limitation.

If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported ML (see Reporting Requirement I.G. of the MRP), then the Discharger is out of compliance.

B. Effluent Limitations Expressed as a Sum of Several Constituents.

If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as Not Detected (ND) or Detected, but Not Quantified (DNQ) to have concentrations equal to zero, provided that the applicable ML is used.

C. Effluent Limitations Expressed as a Median.

In determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

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

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

D. Mass-based Effluent Limitations.

In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for ND and the estimated concentration for DNQ for the calculation of the monthly average concentration. To be consistent with Limitations and Discharge Requirements, section VII.B, if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

E. Multiple Sample Data.

When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

F. Average Monthly Effluent Limitation (AMEL).

If the average (or when applicable, the median determined by subsection E above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though 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). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

In determining compliance with the AMEL, the following provisions shall also apply to all constituents:

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

2. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

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

When one or more sample results are reported as ND or DNQ (see Reporting Requirement I.G. of the MRP), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

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

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

G. Maximum Daily Effluent Limitations (MDEL).

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

H. Instantaneous Minimum Effluent Limitation.

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

J. Annual Effluent Limitation.

Compliance with wet-weather, mass-based effluent limitations for copper, lead, and zinc, established in section IV.A of this Order, shall be determined by calculating the cumulative mass discharged of each parameter over a calendar year. In calculating mass emission rates from daily discharge concentrations, use one half of the method detection limit for ND and the estimated concentration for DNQ for the calculation of the mass discharged. To be consistent with Limitations and Discharge Requirements, section VII.B, if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the mass discharged. The cumulative annual mass emission (kg/yr) for the discharge shall be calculated and reported in each Quarterly Report using the effluent concentration and the actual flow rate measured at the time of discharge using the formula:

M_A = Sum for calendar year (3.785 x Ce x V)
where:
M_A = cumulative mass discharge for a pollutant, kg/yr, during wet-weather, within the calendar year.
3.785 = conversion factor
Ce = measured effluent concentration for a pollutant, mg/L
V = actual volume (millions of gallons) discharged over representative sample period.

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)
Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$
where:
Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL)
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.

Annual Effluent Limitations
The highest allowable mass from the sum of daily discharges within a calendar year.

Best Management Practices (BMPs)
BMPs are methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including storm water. BMPs include structural and non-structural control, and operation maintenance procedures, which can be applied before, during, and/or after pollution-producing activities.

Bioaccumulative
Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic
Pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV)
CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge
Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the

arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)
DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit
Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effluent Concentration Allowance (ECA)
ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Emergency Storm Event
A rainfall or cumulative rainfalls that are equal to or greater than the 24-hour, 50 year storm event.

Enclosed Bays
Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration
The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries
Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of freshwater and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code

section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Existing Discharger
Any discharger that is not a new discharger. An existing discharger includes an "increasing discharger" (i.e., any existing facility with treatment systems in place for its current discharge that is or will be expanding, upgrading, or modifying its permitted discharge after the effective date of this Order).

Inland Surface Waters
All surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

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 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 limitation).

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). 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 arithmetic mean measurement of the pollutant over the day.

Median
The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in Title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)
ML is the concentration 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.

Mixing Zone
Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Not Detected (ND)
Sample results which are less than the laboratory's MDL.

Ocean Waters
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. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Persistent Pollutants
Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP)
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 priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based 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 Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention
Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code Section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Reporting Level (RL)
RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with Section 2.4.2 of the SIP or established in accordance with Section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation 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 in cases 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 RL.

Satellite Collection System
The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Source of Drinking Water
Any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ)
Standard Deviation is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

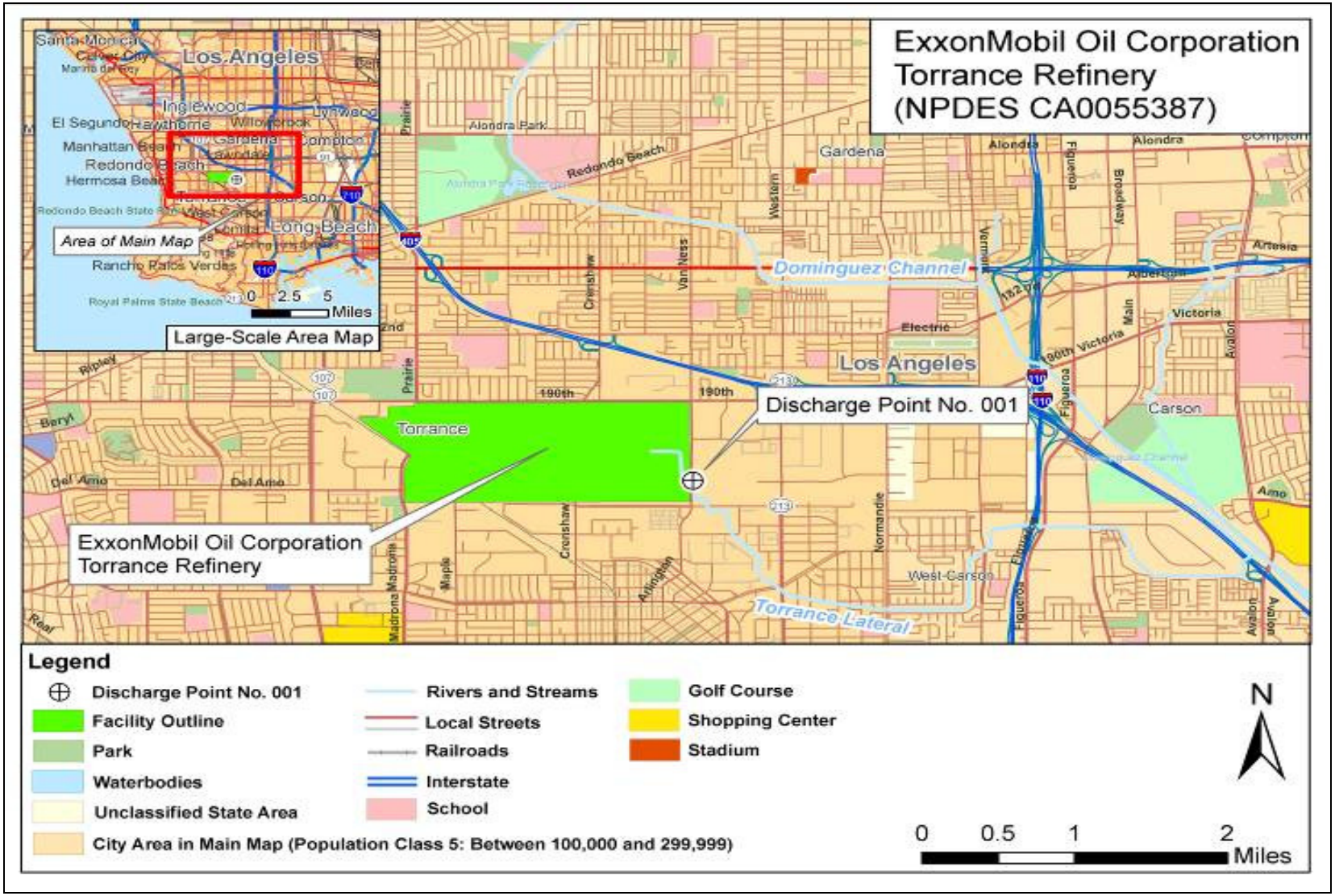
Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

ACRONYMS AND ABBREVIATIONS

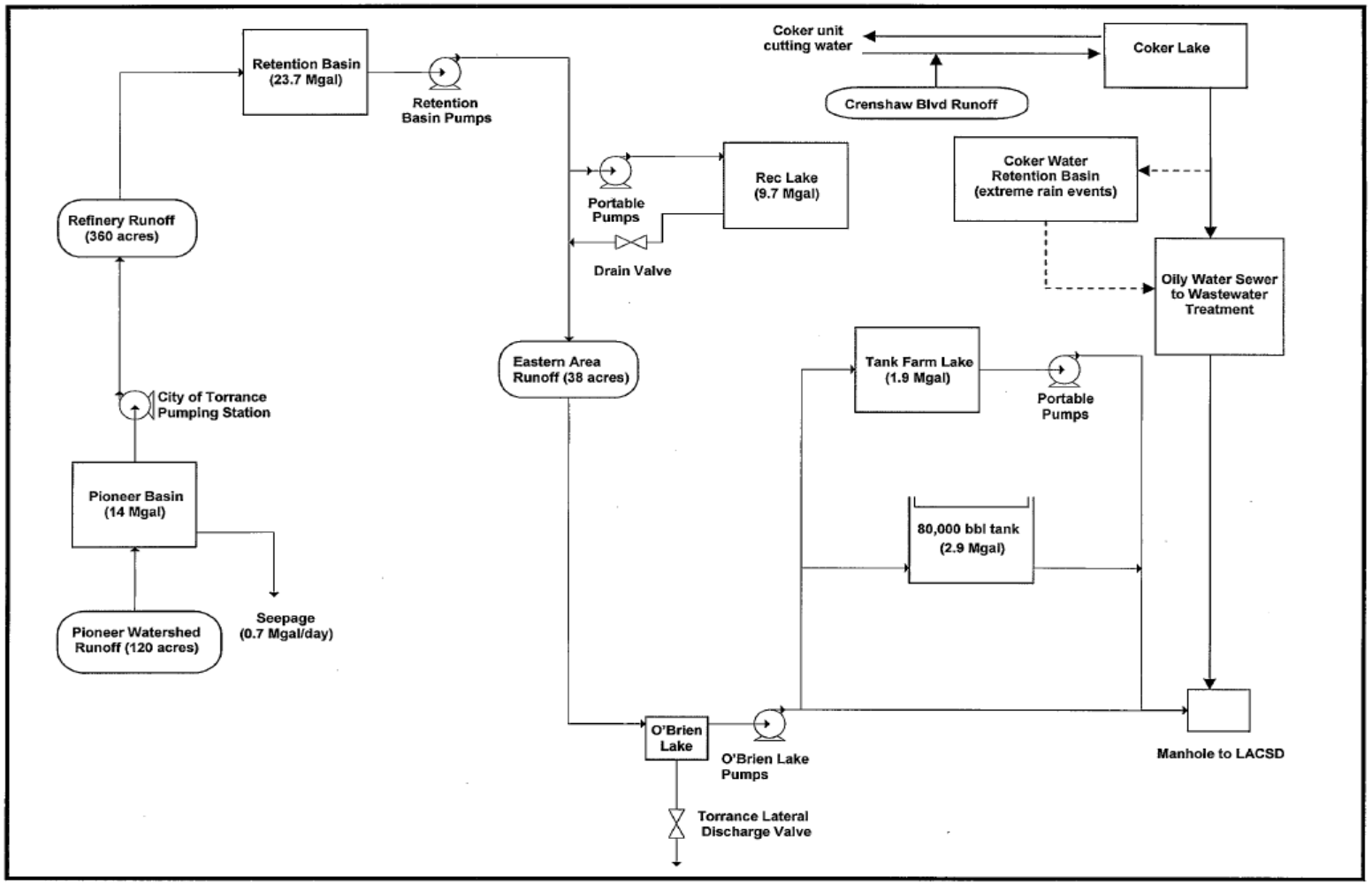
AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	*Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 ℃
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	ExxonMobil Oil Corporation
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	Torrance Refinery
gpd	gallons per day
IC	Inhibition Coefficient
IC_{15}	Concentration at which the organism is 15% inhibited
IC_{25}	Concentration at which the organism is 25% inhibited
IC_{40}	Concentration at which the organism is 40% inhibited
IC_{50}	Concentration at which the organism is 50% inhibited
LA	Load Allocations
LOEC	Lowest Observed Effect Concentration
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MRP	Monitoring and Reporting Program
ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule

OAL	Office of Administrative Law
PMEL	Proposed Maximum Daily Effluent Limitation
PMP	Pollutant Minimization Plan
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAPPs	Quality Assurance Project Plans
Ocean Plan	*Water Quality Control Plan for Ocean Waters of California*
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
RPA	Reasonable Potential Analysis
SPCC Plan	Spill Prevention Control and Countermeasures Plan
Sediment Quality Plan	*Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*
SIP	State Implementation Policy (*Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California)*
SMR	Self Monitoring Reports
State Water Board	California State Water Resources Control Board
SWAMP	Surface Water Ambient Monitoring Program
SWPPP	Storm Water Pollution Prevention Plan
TAC	Test Acceptability Criteria
Thermal Plan	*Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California*
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document
TSS	Total Suspended Solids
TU_c	Chronic Toxicity Unit
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Waste Load Allocations
WQBELs	Water Quality-Based Effluent Limitations
WQS	Water Quality Standards
%	Percent

ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC



Note: Dike area storage is not shown. Storm water from the dike areas is typically held up during the storm and does not enter surface drainage directly. Tank dike areas may also be used to store storm water from other areas consistent with maintaining required containment volume. Storm watrer from diked areas can be pumped to Rec Lake for transfer to LACSD and/or Outfall 001.

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. 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 [section 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 has not yet been modified to incorporate the requirement [section 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 [section 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 that has a reasonable likelihood of adversely affecting human health or the environment [section 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. 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 [section 122.41(e)].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [section 122.41(g)].

2. The issuance of this Order 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 [section 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 [section 122.41(i)] [Water Code 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 [section 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 [section 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 [section 122.41(i)(3)]; and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location [section 122.41(i)(4)].

G. Bypass

1. Definitions

a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility [section 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 [section 122.41(m)(1)(ii)].

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below [section 122.41(m)(2)].

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [section 122.41(m)(4)(i)]:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [section 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 that occurred during normal periods of equipment downtime or preventive maintenance [section 122.41(m)(4)(i)(B)]; and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below [section 122.41(m)(4)(i)(C)].

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [section 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 10 days before the date of the bypass [section 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 below (24-hour notice) [section 122.41(m)(3)(ii)].

H. Upset

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 [section 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 below 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 [section 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 [section 122.41(n)(3)]:

a. An upset occurred and that the Discharger can identify the cause(s) of the upset [section 122.41(n)(3)(i)];

b. The permitted facility was, at the time, being properly operated [section 122.41(n)(3)(ii)];

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

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [section 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 [section 122.41(n)(4)].

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order 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 condition [section 122.41(f)].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [section 122.41(b)].

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code [section 122.41(l)(3) and section 122.61].

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [section 122.41(j)(1)].

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified

in Part 503 unless other test procedures have been specified in this Order [section 122.41(j)(4) and section 122.44(i)(1)(iv)].

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order 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 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, and records of all data used to complete the application for this Order, for a period of at least three (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 at any time [section 122.41(j)(2)].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [section 122.41(j)(3)(i)];

2. The individual(s) who performed the sampling or measurements [section 122.41(j)(3)(ii)];

3. The date(s) analyses were performed [section 122.41(j)(3)(iii)];

4. The individual(s) who performed the analyses [section 122.41(j)(3)(iv)];

5. The analytical techniques or methods used [section 122.41(j)(3)(v)]; and

6. The results of such analyses [section 122.41(j)(3)(vi)].

C. Claims of confidentiality for the following information will be denied [section 122.7(b)]:

1. The name and address of any permit applicant or Discharger [section 122.7(b)(1)]; and

2. Permit applications and attachments, permits and effluent data [section 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 or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order [section 122.41(h)] [Water Code section 13267].

B. Signatory and Certification Requirements

1. All 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 below [section 122.41(k)].

2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. [section 122.22(a)(1)].

3. All reports required by this Order 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 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above [section 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.) [section 122.22(b)(2)]; and

c. The written authorization is submitted to the Regional Water Board and State Water Board [section 122.22(b)(3)].

4. If an authorization under Standard Provisions – Reporting V.B.3 above 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 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative [section 122.22(c)].

5. 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." [section 122.22(d)].

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order [section 122.22(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 or State Water Board for reporting results of monitoring of sludge use or disposal practices [section 122.41(l)(4)(i)].

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [section 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 [section 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, shall be submitted no later than 14 days following each schedule date [section 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 within five (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 [section 122.41(l)(6)(i)].

2. The following shall be included as information that must be reported within 24 hours under this paragraph [section 122.41(l)(6)(ii)]:

a. Any unanticipated bypass that exceeds any effluent limitation in this Order [section 122.41(l)(6)(ii)(A)].

b. Any upset that exceeds any effluent limitation in this Order [section 122.41(l)(6)(ii)(B)].

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [section 122.41(l)(6)(iii)].

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [section 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 section 122.29(b) [section 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 not subject to effluent limitations in this Order [section 122.41(l)(1)(ii)].

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 this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [section 122.41(l)(1)(ii)].

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements [section 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 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above [section 122.41(l)(7)].

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a 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 [section 122.41(l)(8)].

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the 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 one (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 two (2) years, or both. Any person who knowingly violates such sections, or 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 three (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 six (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 [*section 122.41(a)(2)*] [*Water Code sections 13385 and 13387*].

C. Any person may be assessed an administrative penalty by the Regional Water Board 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 [*section 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 [*section 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 Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both [*section 122.41(k)(2)*].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [section 122.42(a)]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [section 122.42(a)(1)]:

a. 100 micrograms per liter (µg/L) [section 122.42(a)(1)(i)];

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [section 122.42(a)(1)(ii)];

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [section 122.42(a)(1)(iii)]; or

d. The level established by the Regional Water Board in accordance with section 122.44(f) [section 122.42(a)(1)(iv)].

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" [section 122.42(a)(2)]:

a. 500 micrograms per liter (µg/L) [section 122.42(a)(2)(i)];

b. 1 milligram per liter (mg/L) for antimony [section 122.42(a)(2)(ii)];

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [section 122.42(a)(2)(iii)]; or

d. The level established by the Regional Water Board in accordance with section 122.44(f) [section 122.42(a)(2)(iv)].

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP NO. 5742)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 5742

The Code of Federal Regulations Section 122.48 requires that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. Water Code Sections 13267 and 13383 also authorize the 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 Discharge Point No. 001 and shall be located where representative samples of that effluent can be obtained.

B. Effluent samples shall be taken downstream of any addition to treatment works and prior to mixing with the receiving waters.

C. The Regional Water Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.

D. Pollutants shall be analyzed using the analytical methods described in Sections 136.3, 136.4, and 136.5 (revised May 18, 2012); or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer 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.

E. For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (USEPA) guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.

F. 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 Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP".

G. The monitoring reports shall specify the analytical method used, the Method Detection Limit (MDL), and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML; or

2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,

3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.

Current MLs (Attachment H) are those published by the State Water Board in the Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, February 24, 2005.

H. Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

The Regional Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Attachment H to be included in the Discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Attachment H;

2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in 40 CFR Part 136 (revised May 18, 2012);

3. When the Discharger agrees to use an ML that is lower than that listed in Attachment H;

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

5. 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, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

I. Water/wastewater samples must be analyzed within allowable holding time limits as specified in Section 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Water

Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.

J. All analyses shall be accompanied by the laboratory report, including but not limited to: chain of custody , which includes date and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed 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.

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

L. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The first quarterly monitoring report of the year shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.

M. When requested by the Regional Water Board or USEPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.

N. For parameters that both average monthly and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the average monthly limit, the Discharger shall collect four additional samples at approximately equal intervals during the month, if possible, until compliance with the average monthly limit has been demonstrated. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later. In the event of noncompliance with an average monthly effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the average monthly effluent limitation has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the average monthly limit.

O. In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:

1. Types of wastes and quantity of each type;

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

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

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

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

Q. Laboratories analyzing monitoring samples shall be certified by the Department of Public Health, in accordance with the provision of Water Code Section 13176, and must include quality assurance/quality control data with their reports.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	Prior to the discharge to the Torrance Lateral (Latitude 33° 50' 54" N, Longitude 118° 19' 01" W).
--	RSW-001	Location that is representative of the combined Outfall 001 and Torrance Lateral flows and is a minimum of 50 feet downstream from the confluence of the Torrance Lateral and Outfall 001 (shall be sampled prior to discharge from Outfall 001)
--	RSW-002	Same as RSW-001 (shall be sampled after commencement of discharge from Outfall 001)

III. INFLUENT MONITORING REQUIREMENTS

Not Applicable

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor treated storm water and other process wastewaters at Monitoring Location EFF-001 as follows.

Table E-2. Effluent Monitoring at Monitoring Location EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD[1]	Meter	1/Day	--
Total Waste Flow	million gallons	Meter	1/Discharge Event	--

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
pH	std. units	Grab	1/Discharge Event[2]	[3]
Oil and Grease[4]	mg/L	Grab	1/Discharge Event[2]	[3]
Total Suspended Solids (TSS)[4]	mg/L	Grab	1/Discharge Event[2]	[3]
Non-Conventional Pollutants				
Acute Toxicity	% survival	Grab	1/Discharge Event[2]	[5]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Discharge Event[2]	[3]
Chemical Oxygen Demand (COD)	mg/L	Grab	1/Discharge Event[2]	[3]
Carbon, Total Organic (TOC)[4]	mg/L	Grab	1/Discharge Event[2]	[3]
Chromium, Total	µg/L	Grab	1/Discharge Event[2]	[3]
Chronic Toxicity	TU_c	Grab	1/Discharge Event[2]	[5]
Escherichia coli (*E. Coli*)	MPN/ 100 ml	Grab	1/Discharge Event[2]	[3]
Hardness, Total (as $CaCO_3$)	mg/L	Grab	1/Discharge Event[2]	[3]
Settleable Solids	ml/L	Grab	1/Discharge Event[2]	[3]
Temperature	°F	Grab	1/Discharge Event[2]	[3]
Total Petroleum Hydrocarbons (TPH) as Gasoline (C_4-C_{12})[4]	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1 or 8015B
TPH as Diesel (C_{13}-C_{22})[4]	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
TPH as Waste Oil (C_{23+})[4]	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
Turbidity	NTU	Grab	1/Discharge Event[2]	[3]
Xylene[4]	µg/L	Grab	1/Discharge Event[2]	[3]
Priority Pollutants				
Chromium (VI), Total Recoverable[4]	µg/L	Grab	1/Discharge Event[2]	[3]
Copper, Total Recoverable[6]	µg/L	Grab	1/Discharge Event[2]	[3]
Lead, Total Recoverable[6]	µg/L	Grab	1/Discharge Event[2]	[3]
Mercury, Total Recoverable[4]	µg/L	Grab	1/Discharge Event[2]	[3]
Nickel, Total Recoverable[4]	µg/L	Grab	1/Discharge Event[2]	[3]
Silver, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Thallium, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Zinc, Total Recoverable[6]	µg/L	Grab	1/Discharge Event[2]	[3]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Benzene	µg/L	Grab	1/Discharge Event[2]	[3]
Benzo(a)anthracene[4]	µg/L	Grab	1/Discharge Event[2]	[3]
Benzo(a)pyrene[4]	µg/L	Grab	1/Discharge Event[2]	[3]
Benzo(b)fluoranthene[4]	µg/L	Grab	1/Discharge Event[2]	[3]
Bis (2-Ethylhexyl)Phthalate[4]	µg/L	Grab	1/Discharge Event[2]	[3]
Chrysene	µg/L	Grab	1/Discharge Event[2]	[3]
Total DDT	µg/L	Grab	1/Discharge Event[2]	[3]
Ethylbenzene	µg/L	Grab	1/Discharge Event[2]	[3]
Total PCBs	µg/L	Grab	1/Discharge Event[2]	[3]
Phenanthrene	µg/L	Grab	1/Discharge Event[2]	[3]
Pyrene	µg/L	Grab	1/Discharge Event[2]	[3]
Toluene	µg/L	Grab	1/Discharge Event[2]	[3]
Remaining Priority Pollutants[7]	µg/L	Grab	1/Year[8]	[3]
TCDD Equivalents[9]	µg/L	Grab	1/Year[8]	[3, 9]

[1] MGD= million gallons per day.

[2] Sampling shall be performed during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report. Each separate period of discharge shall be sampled, but no more than one sample per week is required. For acute and chronic toxicity, no more than one sample per quarter is required. If there is no discharge to surface waters, then no monitoring is required. In the corresponding monitoring report, the Discharger will indicate under statement of perjury that no effluent was discharged to surface water during the reporting period.

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants, the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

[4] The mass emission (lbs/day) for the discharge shall be calculated and reported using the effluent concentration and the actual flow rate measured at the time of discharge, using the formula:

$M = 8.34 \times Ce \times Q$

where:

8.34 = conversion factor

M = mass discharge for a pollutant, lbs/day

Ce = limitation concentration for a pollutant, mg/L

Q = actual discharge flow rate (MGD)

[5] Refer to section V, Whole Effluent Toxicity Testing Requirements.

[6] The cumulative annual mass emission (kg/yr) for the discharge shall be calculated and reported in each Quarterly Report using the effluent concentration and the actual flow rate measured at the time of discharge using the formula:

M_A = Sum for calendar year $(3.785 \times Ce \times V)$

where:

M_A = cumulative mass discharge for a pollutant, kg/yr, during wet-weather, within the calendar year.

3.785 = conversion factor

Ce = measured effluent concentration for a pollutant, mg/L

V = actual volume (millions of gallons) discharged over representative sample period.

[7] Priority Pollutants as defined by the CTR defined in Finding II.K of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

[8] Sampling shall be performed during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report. Monitoring is only required during years in which discharge occurs. Annual samples shall be collected during the first discharge of the year. If there is no discharge to surface waters, the Discharger will indicate in the corresponding monitoring report, under statement of perjury that no effluent was discharged to surface water during the reporting period.

[9] TCDD equivalents shall be calculated using the following formula, where the toxicity equivalency factors (TEFs) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD equivalents) = $\Sigma(C_x \times TEF_x)$

where:

C_X = concentration of dioxin or furan congener x

TEF_X = TEF for congener x

Toxicity Equivalency Factors

Congeners	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	1.0
1,2,3,7,8 - penta CDD	1.0
1,2,3,4,7,8 - hexa CDD	0.1
1,2,3,6,7,8 - hexa CDD	0.1
1,2,3,7,8,9 - hexa CDD	0.1
1,2,3,4,6,7,8 - hepta CDD	0.01
Octa CDD	0.0001
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
1,2,3,4,7,8 - hexa CDF	0.1
1,2,3,6,7,8 - hexa CDF	0.1
1,2,3,7,8,9 - hexa CDF	0.1
2,3,4,6,7,8 - hexa CDF	0.1
1,2,3,4,6,7,8 - hepta CDFs	0.01
1,2,3,4,7,8,9 - hepta CDFs	0.01
Octa CDF	0.0001

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

B. Toxicity samples may be flow-weighted composite samples, or grab samples.

C. Sufficient sample volume shall be collected to perform both the required toxicity tests and TIE studies.

D. Holding Times. All toxicity tests shall be conducted as soon as possible following sample collection. The 36-hour sample holding time for test initiation shall be targeted. However, no more than 72 hours shall elapse before the conclusion of sample collection and test initiation.

E. Definition of Acute Toxicity. Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period.

1. The average survival for any three (3) consecutive toxicity tests shall be at least 90%, and

2. The survival for a single toxicity test shall be at least 70%.

F. Definition of Chronic Toxicity. Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or receiving waters compared to that of the control organisms.

G. Definition of Percent Effect. Percent Effect is defined as the effect value—denoted as the difference between the mean control response and the mean IWC response, divided by the mean control response—multiplied by 100.

H. Acute Toxicity Effluent Monitoring Program

1. Freshwater Test Species and Methods.

For this permit, samples are collected from outfalls discharging to receiving waters with salinity <1 ppt. The Permittee shall conduct the following acute toxicity tests on undiluted samples in accordance with freshwater species and test methods in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012, 2002; Table IA, 40 CFR Part 136). In no case shall the following test species and methods be substituted with another organism unless written authorization from the Regional Water Board Executive Officer is received.

a. A 96-hour static renewal toxicity test with the fathead minnow, *Pimephales promelas* (Acute Toxicity Test Method 2000.0). Alternatively, daily observations for mortality during the *Pimephales promelas* chronic toxicity test (Larval Survival and Growth Test Method 1001.0 in EPA/821/R-02/013, 2002) make it possible to calculate acute toxicity for the 96-hour exposure period, both for the acute toxicity WQBEL in Table 6 of the Order and the TST hypothesis test results required in MRP section V.K.1.a.

b. A 96-hour static renewal toxicity test with the daphnid, *Ceriodaphnia dubia* (Acute Toxicity Test Method 2002.0). Alternatively, daily observations for mortality during the *Ceriodaphnia dubia* chronic toxicity test (Survival and Reproduction Test Method 1002.0 in EPA/821/R-02/013, 2002) make it possible to calculate

acute toxicity for the 96-hour exposure period, both for the acute toxicity WQBEL in Table 6 of the Order, and the TST hypothesis test results required in MRP section V.K.1.a.

2. Test Species Sensitivity Screening

   To determine the most sensitive test species, the Permittee shall conduct two toxicity tests, during two consecutive discharge events, with a vertebrate and an invertebrate. After this screening period, subsequent monitoring shall be conducted using the most sensitive test species. Alternatively, if a sensitive test species has already been determined, or if there is prior knowledge of potential toxicant(s) and a test species is sensitive to such toxicant(s), then monitoring shall be conducted using only that test species. After the screening period, subsequent monitoring shall be conducted using the most sensitive test species.

   Rescreening should occur at least once every five years or life of the permit in cases where discharge events occur infrequently.

3. For this monitoring program, the critical acute instream waste concentration (IWC) is set at 100% effluent. A 100% effluent sample and a control shall be tested. Acute toxicity test biological endpoint data shall be statistically analyzed using the Test of Significant Toxicity t-test approach specified in Appendix A of the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (U.S. Environmental Protection Agency, Office of Wastewater Management, Washington, DC. EPA 833-R-10-003, 2010).

4. For this monitoring program to evaluate compliance with the acute toxicity WQBEL based on the acute toxicity objective in the Basin Plan, the critical acute instream waste concentration (IWC) is set at 100% effluent. A 100% effluent sample and a control shall be tested. Acute toxicity test biological endpoint data shall be analyzed directly to report % survival in the 100% effluent sample.

I. Chronic Toxicity Effluent Monitoring Program

1. ***Freshwater Test Species and Methods***

   For this permit, samples are collected from outfalls discharging to receiving waters with salinity <1 ppt. The Permittee shall conduct the following critical life stage chronic toxicity tests on undiluted samples in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002; Table IA, 40 CFR Part 136). In no case shall the following test species and methods be substituted with another organism unless written authorization from the Regional Water Board Executive Officer is received.

   a. A static renewal toxicity test with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1001.0).

b. A static renewal toxicity test with the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.0).

c. A static toxicity test with the green alga, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata*) (Growth Test Method 1003.0).

2. Test Species Sensitivity Screening

   To determine the most sensitive test species, the Permittee shall conduct two toxicity tests, during two consecutive discharge events, with a vertebrate, an invertebrate, and a plant. After this screening period, subsequent monitoring shall be conducted using the most sensitive test species. Alternatively, if a sensitive test species has already been determined, or if there is prior knowledge of potential toxicant(s) and a test species is sensitive to such toxicant(s), then monitoring shall be conducted using only that test species. After the screening period, subsequent monitoring shall be conducted using the most sensitive test species.

   Rescreening should occur at a minimum of once every five years or life of the permit where discharges occur infrequently. If no discharge occurs in a five year period, the rescreening will occur at the next discharge event.

3. The results of chronic toxicity testing shall be statistically analyzed and reported in two separate ways as follows.

   a. For this monitoring program, the critical chronic instream waste concentration (IWC) is set at 100% effluent. A 100% effluent sample and a control shall be tested. Chronic toxicity test biological endpoint data shall be statistically analyzed using the Test of Significant Toxicity t-test approach specified in Appendix A of the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (U.S. Environmental Protection Agency, Office of Wastewater Management, Washington, DC. EPA 833-R-10-003, 2010).

   b. For this monitoring program to evaluate compliance with the chronic toxicity WQBEL based on the chronic toxicity WLA in the Harbor Toxics TMDL, the critical chronic IWC is set at 100% effluent. A 100%, 75%, 50%, 25%, and 12.5% effluent sample and a control shall be tested. Chronic toxicity test biological endpoint data shall be statistically analyzed using appropriate hypothesis testing approaches, specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002; Table IA, 40 CFR Part 136), to report TUc = 100/NOEC.

J. Quality Assurance

1. If the effluent test does not meet all test acceptability criteria (TAC) specified in the test methods manuals (*Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-013/012, 2002), then the Permittee must re-sample and re-test at the earliest possible time.

2. Control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manuals.

3. 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 toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).

K. Additional Toxicity Monitoring and Toxicity Identification Evaluation (TIE) for the Test of Significant Toxicity t-Test Approach.

1. If acute and/or chronic toxicity is detected (i.e., reported as "Fail" for the TST hypothesis test) at an effluent monitoring station during a discharge event, then the Permittee shall continue toxicity testing during discharge events at that monitoring station—but not more frequently than weekly—until the nature and cause(s) of the toxicity is defined and/or eliminated. A toxicity test sample is immediately subject to TIE procedures to identify the toxic chemical(s), if:

   a. The acute toxicity test shows a Percent Effect value >50% at the IWC. A TIE shall be performed to identify the causes of acute toxicity using the same species and test method and, as guidance, U.S. EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document (EPA/600/R-96-054, 1996).

   b. The chronic toxicity test shows a Percent Effect value >50% at the IWC. A TIE shall be performance to identify the causes of chronic toxicity using the same species and test method and, as guidance, U.S. EPA manuals: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, 1992); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996).

2. The TIE should be conducted on the test species demonstrating the most sensitive toxicity response at a sampling station. A TIE may be conducted on a different test species demonstrating a toxicity response with the caveat that once the toxicant(s) is identified, the most sensitive test species triggering the TIE shall be further tested to verify that the toxicant has been identified and addressed.

L. Toxicity Reduction Evaluation (TRE)

1. When a toxicant or class of toxicants is identified, a TRE shall be performed for that toxicant.

2. The TRE shall include all reasonable steps to identify the source(s) of toxicity and discuss appropriate BMPs/treatment to eliminate the causes of toxicity. No later than 30 days after the source of toxicity and appropriate BMPs/treatment are identified, the Permittee shall submit a TRE Corrective Action Plan to the Regional Water Board Executive Officer for approval. At a minimum, the plan shall include a discussion of the following:

   a. The potential sources of pollutant(s) causing toxicity.

   b. Recommended BMPs/treatment to reduce the pollutant(s) causing toxicity.

   c. Follow-up monitoring to demonstrate that toxicity has been removed.

M. Toxicity Reporting

1. Toxicity monitoring results submitted to the Regional Water Board shall be consistent with the requirements identified in Section X of the MRP. The Regional Water Board shall be notified no later than 30 days from completion of each aspect of the analysis for TIEs/TREs.

2. The SMR required by Section X of the MRP shall include:

   a. A full laboratory report for each toxicity test prepared according to the appropriate test methods manual chapter on Report Preparation, including:

      i. The acute toxicity test results reported as the “Percent Effect”, and “Pass” or “Fail” for the TST hypothesis test t-test.

      ii. The chronic toxicity test results reported as the “Percent Effect”, and “Pass” or “Fail” for the TST hypothesis test t-test.

      iii. The dates of sample collection and initiation of each toxicity test.

      iv. Test species with biological endpoint values for each concentration tested.

      v. Reference toxicant test results.

      vi. Water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

      vii. TRE/TIE testing results.

      viii. A printout of CETIS (Comprehensive Environmental Toxicity Information System) program results.

ix. All results for effluent and receiving water parameters monitored concurrently with the toxicity test.

x. TIEs (Phases I, II, and III) that have been completed or are being conducted, by monitoring station.

xi. The development, implementation, and results for each TRE Corrective Action Plan, beginning quarterly following the identification of each pollutant or pollutant class causing toxicity.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

Not Applicable

VII. RECLAMATION MONITORING REQUIREMENTS

Not Applicable

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Monitoring Location RSW-001

1. The Discharger shall monitor the Torrance Lateral, at Monitoring Location RSW-001, representative of the combined Outfall 001 and Torrance Lateral flows and is a minimum of 50 feet downstream from the confluence of the Torrance Lateral and Outfall 001 (shall be sampled prior to discharge from Outfall 001) as follows:

Table E-3. Receiving Water Monitoring Requirements at Monitoring Location RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Ammonia, Total (as N)	mg/L	Grab	1/Discharge Event[1]	[2]
Dissolved Oxygen	mg/L	Grab	1/Discharge Event[1]	[2]
Hardness, Total (as $CaCO_3$)	mg/L	Grab	1/Discharge Event[1]	[2]
pH	s.u.	Grab	1/Discharge Event[1]	[2]
Salinity	mg/L	Grab	1/Discharge Event[1]	[2]
Temperature	ºF	Grab	1/Discharge Event[1]	[2]
Priority Pollutants[3]	µg/L	Grab	1/Year[4]	[2]
TCDD Equivalents [5]	µg/L	Grab	1/Year[4]	[2]

[1] Sampling shall be conducted during discharge events during years in which a discharge occurs. During periods of extended discharge, no more than one sample per week (or a 7-day period) is required. Receiving water samples are collected at the same time as effluent samples, if possible, or at the first safe opportunity. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report.

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the

State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding ML.

[3] Priority Pollutants as defined by the CTR, defined in Finding II.K of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

[4] Annual samples shall be collected during the first discharge of the year and shall be monitored concurrently with effluent monitoring specified in section IV.A of this MRP (Attachment E). If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report. Monitoring is not required during years in which no discharge occurs.

[5] To determine compliance with effluent limitations or to conduct Reasonable Potential Analysis (RPA), this Order requires the Discharger to calculate and report dioxin-toxicity equivalencies (TEQs) using the following formula, where the toxicity equivalency factors (TEFs) are as listed in the Table below:

Dioxin-TEQ = $\Sigma(C_X \ TEF_X)$

where:

C_X = concentration of dioxin or furan congener x

TEF_X = TEF for congener x

Toxicity Equivalency Factors

Congeners	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	1.0
1,2,3,7,8 - penta CDD	1.0
1,2,3,4,7,8 - hexa CDD	0.1
1,2,3,6,7,8 - hexa CDD	0.1
1,2,3,7,8,9 - hexa CDD	0.1
1,2,3,4,6,7,8 - hepta CDD	0.01
Octa CDD	0.0001
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
1,2,3,4,7,8 - hexa CDF	0.1
1,2,3,6,7,8 - hexa CDF	0.1
1,2,3,7,8,9 - hexa CDF	0.1
2,3,4,6,7,8 - hexa CDF	0.1
1,2,3,4,6,7,8 - hepta CDFs	0.01
1,2,3,4,7,8,9 - hepta CDFs	0.01
Octa CDF	0.0001

B. Monitoring Location RSW-002

1. The Discharger shall monitor the Torrance Lateral, at Monitoring Location RSW-002, representative of the combined Outfall 001 and Torrance Lateral flows and is a minimum of 50 feet downstream from the confluence of the Torrance Lateral and Outfall 001 (shall be sampled after commencement of discharge from Outfall 001) as follows:

Table E-4. Receiving Water Monitoring Requirements at Monitoring Location RSW-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Ammonia, Total (as N)	mg/L	Grab	1/Discharge Event[1]	[2]
pH	s.u.	Grab	1/Discharge Event[1]	[2]
Dissolved Oxygen	mg/L	Grab	1/Discharge Event[1]	[2]
Temperature	ºF	Grab	1/Discharge Event[1]	[2]
Priority Pollutants[3]	µg/L	Grab	1/Year[4]	[2]
TCDD Equivalents [5]	µg/L	Grab	1/Year[4]	[2]

[1] Sampling shall be conducted during discharge events during years in which a discharge occurs, but no less than once per year. During periods of extended discharge, no more than one sample per week (or a 7-day period) is required. Receiving water samples are collected at the same time as effluent samples, if possible, or at the first safe opportunity. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report.

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding ML.

[3] Priority Pollutants as defined by the CTR, defined in Finding II.K of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

[4] Annual samples shall be collected during the first discharge of the year and shall be monitored concurrently with effluent monitoring specified in section IV.A of this MRP (Attachment E). If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report. Monitoring is not required during years in which no discharge occurs.

[5] See footnote 5 – Table E-3 above.

IX. OTHER MONITORING REQUIREMENTS

A. Storm Water Monitoring

1. Rainfall Monitoring. The Discharger shall measure and record the rainfall on each day of the month. If the rainfall monitoring device is out of service, the Discharger may use local rainfall data from the Torrance Airport. This information shall be included in the monitoring report for that month.

2. Visual Observation. The Discharger shall make visual observations of all storm water discharge locations on at least one storm event per month that produces a significant storm water discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor. A “significant storm water discharge” is a continuous discharge of storm water for a minimum of one hour, or the intermittent discharge of storm water for a minimum of 3 hours in a 12-hour period.

B. Storm Water Pollution Prevention Plan (SWPPP), Best Management Practices Plan (BMPP) and Spill Prevention Control and Countermeasures (SPCC) Effectiveness Report,

1. As required under Special Provision VI.C.3 of this Order, the Discharger shall submit an updated SWPPP, BMPP, and SPCC Plan to the Executive Officer of the Regional Water Board for approval within 180 days of the effective date of this permit.

Annually the Discharger shall report the status of the implementation and the effectiveness of the SWPPP, BMPP, and SPCC Plan Status required under Special Provision VI.C.3 of this Order. The SWPPP and BMPP shall be reviewed at a minimum once per year and updated as needed to ensure all actual or potential sources of pollutants in wastewater and storm water discharged from the facility are addressed. The SPCC Plan shall be reviewed at a minimum once every five years. All changes or revisions to the SWPP, BMPP, and SPCC Status will be summarized in the first quarter report required under Attachment E, Monitoring and Reporting, section XI.D.

C. Chemical Use Report

1. The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, an updated list of all chemicals and proprietary additives which could affect the waste discharge, including quantities of each.

2. The Discharger shall report annually, in the first quarter SMR, summarizing the quantities of all chemicals, listed by both trade and chemical names, which are used at the facility and which are discharged or have the potential to be discharged.

X. 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. 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 waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

5. The Discharger shall report the results of toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section V.F.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this 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 SMRs as searchable PDF documents. SMR documents that are less than 10 megabytes (MB) should be emailed to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed in section X.B.8.c of this MRP. 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 the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit quarterly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
1/Day	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	November 1 February 1 May 1 August 1
1/Discharge Event	Permit effective date	1st day of calendar month through last day of calendar month	November 1 February 1 May 1 August 1
1/Year	January 1 following (or on) Permit effective date	January 1 through December 31	February1

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

5. 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 Reporting Limit (RL), but greater than or equal to the laboratory's MDL, shall be reported as 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."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as 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.

6. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the RL.

7. Multiple Sample Data. When determining compliance with an Average Monthly Effluent Limitation (AMEL) or Maximum Daily Effluent Limitation (MDEL) for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

8. The Discharger shall submit SMRs in accordance with the following requirements:

a. 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 interim and/or final effluent limitations. 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. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements (WDRs); 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.

C. Discharge Monitoring Reports (DMRs)

1. As described in section X.B of this MRP, 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 the 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 address listed below:

STANDARD MAIL	FEDEX/UPS/OTHER PRIVATE CARRIERS
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center P.O. Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

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 will not be accepted unless they follow the exact same format of EPA Form 3320-1.

D. Other Reports

1. Within 180 days of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:

a. Initial Investigation TRE workplan

b. Updated SWPPP

c. Updated BMPP

d. Updated SPCC Plan

2. Within **20 months** of the effective date of the Harbor Toxics TMDL **and annually thereafter,** the Discharger or the Responsible Parties shall submit annual implementation reports to the Regional Water Board. The reports shall describe the measures implemented and the progress achieved toward meeting the assigned WLAs and LAs

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

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

This Order 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 that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4B192079002
Discharger	ExxonMobil Oil Corporation
Name of Facility	Torrance Refinery
Facility Address	3700 West 190th Street
	Torrance, CA 90509
	Los Angeles County
Facility Contact, Title and Phone	Amy Kim, Environmental Advisor, 310-212-3760
Authorized Person to Sign and Submit Reports	E. Pablo Borgnino, Refinery Manager, 310-212-4500
Mailing Address	Same as Facility Address
Billing Address	Same as Mailing Address
Type of Facility	Petroleum Refining (SIC 2911)
Major or Minor Facility	Major
Threat to Water Quality	Category 2
Complexity	Category C
Pretreatment Program	No
Reclamation Requirements	Not Applicable
Facility Permitted Flow	10 million gallons per day (MGD)
Facility Design Flow	Not Applicable
Watershed	Dominguez Channel
Receiving Water	Torrance Lateral to Dominguez Channel
Receiving Water Type	Inland Surface Water

A. ExxonMobil Oil Corporation (hereinafter Discharger) is the owner and operator of the Torrance Refinery Facility (hereinafter Facility) located at 3700 West 190th Street, Torrance, California.

For the purposes of this Order, 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 wastewater to the Torrance Lateral (Los Angeles County Flood Control Channel Project No. 537), a tributary to the Dominguez Channel, a water of the United States, and is currently regulated by Order No. R4-2007-0049 which was adopted on September 6, 2007, and was scheduled to expire on August 10, 2012. The terms and conditions of the current Order (R4-2007-0049) have been continued as per 40 CFR section 122.6, which stipulates that if the Discharger submits a timely report of waste discharge (ROWD) and the permit is not renewed prior to the expiration date, the permit may be administratively extended. The current Order remains in effect until new Waste Discharge Requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit are adopted pursuant to this Order.

C. The Discharger filed a ROWD and submitted an application for renewal of its waste discharge requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on February 1, 2012. A site visit was conducted on November 28, 2011.

II. FACILITY DESCRIPTION

The Discharger owns and operates the Facility, a petroleum refining facility, which processes crude petroleum. The Refinery processes approximately 150,000 barrels per day of crude oil to produce gasoline, diesel fuel, jet fuel, sulfur, coke, and liquefied petroleum gas (LPG). The refinery processes include crude cracking, flashing, coking, hydrotreating, alkylation, reforming, and sulfur recovery.

A. Description of Wastewater and Biosolids Treatment or Controls

The discharge is primarily composed of storm water collected at the site, which consists of 734 acres of drainage area (110 acres of impervious surface) as well as storm water from the Pioneer Watershed, a neighborhood south of the facility within the City of Torrance. Runoff from the Pioneer Watershed can comprise up to 25 percent of the storm water flow within the Discharger's system. Other sources that may commingle with the discharge include small amounts of steam condensate and process area washwaters (mainly hosing down for dust control) that may be present in sumps when storm water is generated, collected, and stored.

Significant materials that could be exposed to storm water are petroleum hydrocarbon compounds associated with refining operations, process area washwater, and steam condensate. Storm water runoff from the City of Torrance (Pioneer Watershed) will contain pollutants typically found in urban sources, including oil and grease, solids, bacteria, and trace metals. Chemical additives used in the refining processes and utility systems; and solid and hazardous waste are stored to prevent contact with rainfall runoff. The storm water pollution prevention plan implemented by the Discharger specifies best management practices to prevent such chemicals from being commingled with storm water and subsequently discharged through Discharge Point No. 001.

The entire site is sloped to the east, so that storm water from non-process areas, drains by gravity to various retention basins, via concrete-lined ditches. In addition, the Facility uses dedicated and portable pumps to manage storm water volumes within the basins. When storm water collects in the tank farm areas, the volumes are managed by pumping among the diked areas. Generally, the Facility pumps storm water from the diked areas to the storm water basins to prevent accumulation of standing water in the tank farm areas.

The storm water commingled with small amounts of steam condensate and process area washwater is stored and treated through a series of retention ponds, then routed to O'Brien Lake. Under most conditions, this wastestream is discharged from O'Brien Lake to a publicly owned treatment works (POTW) through the Van Ness Outfall under Los Angeles County Sanitation District (LACSD) permit No. 516, which allows for discharge of up to 10,000 gpm, during dry weather and for 5,000 gpm during a storm event and for 24 hours after the storm event. Discharges through the Van Ness Outfall are regulated separately under the LACSD Permit No. 516 and are not included in this Order. The Discharger's primary operative is to provide storage during wet weather and maximize discharge through the Van Ness Outfall, thereby providing treatment for the "first flush" of a storm event. During extreme storm events when the capacity to store and discharge to the Van Ness Outfall is exceeded, the Facility discharges to the Torrance Lateral via O'Brien Lake. The retention ponds and other relevant units are described below. Refer to Attachment C of this Order for a process flow diagram.

1. **Pioneer Basin.** Storm water runoff from the Pioneer Watershed is collected in Pioneer Basin (with a storage capacity of 14 million gallons). Pioneer Basin is located off-site, west of Prairie Avenue and receives drainage from west of Prairie Boulevard and from Crenshaw Boulevard. Discharges from Pioneer Basin to the ExxonMobil drainage system are managed by an established procedure developed in conjunction with the City of Torrance to optimize the use of the detention capabilities of the Pioneer Basin. Established procedures include sampling of discharges from the Pioneer Basin. The City of Torrance has not discharged from Pioneer Basin since 2011.

2. **Drainage Ditches.** A series of drains convey storm water commingled with steam condensate and process washwater from throughout the site to the Retention Basin or Reclamation Lake. One of two main concrete drainage ditches runs from Retention Lake, along 4th Street to Reclamation Lake. The second main ditch runs from Reclamation Lake to O'Brien Lake.

3. **Tank Farms.** The Facility has over 100 aboveground storage tanks containing petroleum products. Several tank farm areas are located throughout the site. Each tank has an individual berm. In addition, groups of tanks share a common berm. Storm water from tank farms is routed to the Retention Basin, or Reclamation Lake.

4. **Retention Basin.** The Retention Basin is a 24.0 million gallon unlined earthen basin that receives runoff from the tank farm area east of Crenshaw Boulevard. Two field valves are located upstream of the Retention Basin. These valves remain open during dry weather and smaller rain events to divert storm water entering the storm drains to the oily water sewer, which ultimately discharges to the POTW through the

Van Ness Outfall. When the valves are closed during larger storms, the storm water is directed to the Retention Basin. Note that these two field valves are operated independently of the valve at O'Brien Lake, which is kept in a closed position and only opened during periods of extreme rainfall runoff in order to discharge storm water through Discharge Point No. 001. The Retention Basin provides solids removal through settling. Floating oil, if any, is skimmed using booms and vacuum trucks. From the Retention Basin, flow is directed to Reclamation Lake.

5. **Reclamation Lake.** Reclamation Lake is an unlined, earthen basin that receives runoff from the tank farm area west of Crenshaw Boulevard. In addition, storm water from O'Brien Lake may also be pumped to Reclamation Lake. This unit provides solids removal through settling. Ultimately, flow from Reclamation Lake is routed to O'Brien Lake for discharge through the Van Ness Outfall or through Discharge Point No. 001.

6. **O'Brien Lake.** O'Brien Lake is a concrete-lined basin that receives storm water from the eastern portions of the site. O'Brien Lake provides storm water storage and is the discharge point to the Torrance Lateral (Discharge Point No. 001). O'Brien Lake is equipped with an underflow baffle and oil skimming weir. In addition, the Discharger applies oil absorbent pads and booms within this unit to remove any floating oil. Storm water that is comingled with steam condensate and process area washwater flows into O'Brien Lake and is pumped to an 80,000 barrel holding tank and/or to the Tank Farm Lake. This stored water is discharged from the Van Ness Outfall to the POTW. The Facility discharges from O'Brien Lake only when the capacity to discharge through the Van Ness Outfall is maximized and the storm water volume approaches the Facility's storage capacity. In this scenario, Facility staff open the valve located in O'Brien Lake to allow flow through hay bales prior to Discharge Point No. 001 at the Torrance Lateral.

The existing NPDES permit, Order No. R4-2007-0049 allows for the discharge of up to 10 MGD of treated storm water from the Facility and the City of Torrance, steam condensate, and process area washwater. Order No. R4-2007-0049 also allows for discharge in excess of 10 MGD, when the rainfall or cumulative rainfalls are equal to or greater than the 50-year return period, 24-hour storm or an equivalent chronic rainfall event and only after all storm water storage has been utilized. Since 2003 the Facility discharged three times to the Torrance Lateral, with the most recent discharge event occurring in February of 2005. No discharges occurred during the term of Order No. R4-2007-0049, as indicated in the Discharger's ROWD dated February 1, 2012.

B. Discharge Points and Receiving Waters

The Discharger proposes to discharge up to 10 MGD of treated storm water commingled with steam condensate and process area washwater from the Facility into the Torrance Lateral (Los Angeles County Flood Control Channel Project No. 537), a tributary to the Dominguez Channel, a water of the United States, via Discharge Point No. 001 (Latitude 33º 50' 54" N, Longitude 118º 19' 01" W). The Torrance Lateral is a concrete channel that flows to the Dominguez Channel Estuary at a location just north of Avalon Boulevard.

Attachment B depicts a topographic map of the area around the Facility. Attachment C depicts the schematic diagram of the wastewater flow.

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

No discharges occurred through Discharge Point No. 001 during the term of the existing Order No. R4-2007-0049.

D. Compliance Summary

During the term of Order No. R4-2007-0049, no discharges occurred. Therefore, there were no violations of effluent limitations.

E. Planned Changes

The Discharger does not currently have any planned changes to the Facility.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order 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 (commencing with Section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with Section 13260).

B. California Environmental Quality Act (CEQA)

Under Water Code Section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code Sections 21100 through 21177.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board adopted a *Water Quality Control Plan Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

   The Basin Plan does not currently assign beneficial uses specific to the Torrance Lateral. Federal regulations that address state water quality standards are contained

in 40 CFR 131.2 and 131.10 and constitute a rebuttable presumption that beneficial uses supporting the "*fishable, swimmable*" goals of the federal CWA are attainable. Therefore, without evidence to disprove attainability, recreation and aquatic life beneficial uses apply to the Torrance Lateral. The Basin Plan states that "*waters not specifically listed (generally, smaller tributaries), are designated with the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary*". The Facility discharges to Torrance Lateral which subsequently discharges to Dominguez Estuary. The beneficial uses identified in the Basin Plan for the Dominguez Channel Estuaryare:

Table F-2. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Dominguez Channel Estuary	Existing: preservation of rare, threatened, or endangered species (RARE) and non-contact water recreation (REC-2), water contact recreation (REC-1), commercial and sport fishing (COMM), estuarine habitat (EST), marine habitat (MAR), wildlife habitat (WILD), migration of aquatic organisms (MIGR), and spawning, reproduction, and/or early development of aquatic habitat (SPWN). Potential: navigation

[1] Access prohibited by Los Angeles County Department of Public Works.

Requirements of this Order implement the Basin Plan.

The discharge from the Facility is comprised primarily of storm water runoff mixed with a small amount of steam condensate and process area washwater. The Facility discharges to the Torrance Lateral, an inland freshwater channel, only during significant storm events.

Sediment Quality Plan. On September 16, 2008 the State Water Board adopted the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (Sediment Quality Plan)*. The Sediment Quality Plan became effective on August 25, 2009. The Sediment Quality Plan establishes: 1) narrative sediment quality objectives for benthic community protection from exposure to contaminants in sediment and to protect human health; and 2) a program of implementation using a multiple lines of evidence approach to interpret the narrative sediment quality objectives. Requirements of this Order implement the Sediment Quality Plan.

2. **Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. Requirements of this Order implement the Thermal Plan. Additionally, a white paper developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and*

Enclosed Bays in the Los Angeles Region. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. Nonetheless, a maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life and is carried over in this Order.

3. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

4. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

5. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for 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 approved by USEPA.

6. **Antidegradation Policy.** Section 131.12 requires that the 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 where the federal policy applies under federal law. Resolution No. 68-16 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. The permitted discharge must be consistent with the antidegradation provision of Section 131.12 and State Water Board Resolution No. 68-16.

7. **Anti-Backsliding Requirements.** Sections 402(o) of the CWA establishes statutory language prohibiting the backsliding of effluent limits. Section 402(o) of the CWA and federal regulations at title 40, Code of Federal Regulations part 122.44(l) outlines specific exceptions to the general prohibition against establishment of less stringent effluent limitations.

   These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. The daily maximum wet weather effluent limitation for nickel is less stringent and the dry weather daily maximum limit for copper is less stringent than the wet weather daily maximum limitation of the previous Order. As discussed in this Fact Sheet, this relaxation of effluent limitations is consistent with this relaxation is consistent with exceptions identified under Section 402(o).

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

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Regional Water Board plans to develop and adopt total maximum daily loads (TMDLs) that will specify waste load allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA approved the State's 2010 303(d) list of impaired water bodies on November 12, 2010. Certain receiving waters in the Los Angeles watershed do not fully support beneficial uses and therefore have been classified as impaired on the 2010 303(d) list and have been scheduled for TMDL development.

The Facility discharges to the Torrance Lateral, which is a tributary to the Dominguez Channel. The 2010 State Water Board California 303(d) List includes the classification of the Torrance Lateral, referred to in the listing as the Torrance Carson Channel. The pollutants/stressors of concern for the Torrance Lateral include coliform bacteria, copper, and lead. The 2010 303(d) List also includes classification of the Dominguez Channel. The pollutants/stressors of concern for the Dominguez Channel include ammonia, benthic community effects, benzo(a)pyrene (3,4-benzopyrene-7-d), benzo(a)anthracene, chlordane (tissue), chrysene (C1-C4), coliform bacteria, dichlorodiphenyltrichloroethane (DDT, tissue and sediment), dieldrin (tissue), lead (tissue), polychlorinated biphenyls (PCBs), phenanthrene, pyrene, sediment toxicity, and zinc (sediment).

The following are summaries of the TMDLs for the Torrance Lateral and the Dominguez Channel:

1. **Bacteria TMDL.** The Regional Water Board approved the *Los Angeles Harbor Bacteria TMDL* (Bacteria TMDL) through Resolution 2004-011 on July 1, 2004. The State Water Board, Office of Administrative Law (OAL), and USEPA approved the TMDL on October 21, 2004, January 5, 2005, and March 1, 2005, respectively. The Bacteria TMDL addresses impairment caused by elevated indicator bacteria in the Main Ship Channel and Inner Cabrillo Beach, both located within the Los Angeles

Harbor. The Dominguez Channel is a tributary to the Main Ship Channel and was included in TMDL survey and linkage analyses. Neither the Torrance Lateral nor the Dominguez Channel are specifically addressed through the Bacteria TMDL WLAs; however, this Order includes effluent limitations for bacteria that are consistent with the Bacteria TMDL and the applicable bacteria water quality standards.

2. **Harbor Toxics TMDL.** The Regional Water Board adopted Resolution No. R11-008 on May 5, 2011, that amended the Basin Plan to incorporate the *TMDL for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbors Waters* (Harbor Toxics TMDL). The Harbor Toxic TMDL was approved by the State Water Board on February 7, 2012, the OAL on March 21, 2012, and the USEPA on March 23, 2012. The Harbor Toxics TMDL contains requirements applicable to this discharge. Therefore, the Regional Water Board has developed and included effluent limitations and monitoring requirements within this Order that are consistent with all assumptions and requirements of all wasteload allocations included in the Harbor Toxics TMDL.

   For the Torrance Lateral, the Harbor Toxics TMDL included:

   a. Concentration-based Torrance Lateral freshwater interim wet weather allocations (in µg/L) for copper, lead, and zinc (Attachment A to Resolution No. R11-08, p. 10).

   b. Concentration-based Dominguez Channel and upstream tributaries final wet weather allocations (in µg/L) for copper, lead, and zinc (Attachment A to Resolution No. R11-08, p. 12).

   c. Water column interim wet weather chronic toxicity allocation of 2 TUc for freshwater tributaries to the Dominguez Channel (Attachment A to Resolution No. R11-08, p. 10)l.

   d. Final wet weather mass-based sediment WLAs (in kg/yr) for copper, lead, and zinc in ExxonMobil discharges to the Torrance Lateral (in kg/yr, unfiltered water) (Attachment A to Resolution No. R11-08, p. 13).

   e. Water column final wet-weather chronic toxicity allocations for freshwater tributaries to the Dominguez Channel (Attachment A to Resolution No. R11-08, p. 11).

   f. Provisions for monitoring discharges and/or receiving waters during the TMDL's 20 year implementation schedule to determine attainment with waste load and load allocations as appropriate.

3. <u>Implementation of the Harbor Toxics TMDL</u>

a. Final Effluent Limitations

   This Order includes a final effluent limit for chronic toxicity of 1 TUc as a daily maximum limit.

The Harbor Toxics TMDL assigns final, mass-based WLAs to the Discharger. The WLAs were developed based on total metals targets, a discharge flow rate of 3.7 MGD for ten days per year and assuming the discharge events are irregular (e.g., occur once every seven years on average). If, during the permit term, due to an increase in discharge frequency or volumes, it appears that the allocations are not supportive of the TMDL, the permit may be reopened and these allocations may be revised. Since the WLAs are based on flow data from the Facility, they are translated directly to effluent limitations.

Table F-3. Harbor Toxics TMDL Final, Wet-weather Effluent Limitations – Discharge Point No. 001

Pollutant	Units	Final, Wet-Weather Allocation
Copper, Total Recoverable[1]	kg/yr[2]	1.36
Lead, Total Recoverable[1]	kg/yr[2]	5.98
Zinc, Total Recoverable[1]	kg/yr[2]	9.75
Chronic Toxicity	TU_c	1

1. Compliance based on unfiltered effluent water samples collected at Discharge Point No. 001.
2. Annual Effluent Limitations.

This Order includes WQBELs based on final wet-weather mass-based WLAs for copper, lead, and zinc converted from freshwater CTR criteria using default translators and discharge flow data from the Facility. The TMDL includes provisions for a 20-year implementation schedule when warranted. This Order also includes interim WLAs based on the Facility's performance with a 4.5 year compliance schedule as per the Clean Water Act section 303(c)(2) approval received from USEPA on November 8, 2012.

The Harbor Toxics TMDL specifies that wet-weather allocations and WLAs apply when the maximum daily flow is greater than or equal to 63 cubic feet per second (cfs) as measured at S28 in the Dominguez Channel. This flow is based on the 90th percentile of the annual flow rates within the Dominguez Channel during the time period between 1995 and 2005. The TMDL further indicates that during conditions less than the 90th percentile of annual flow rate, samples must demonstrate that the acute and chronic hardness dependent water quality criteria provided in the CTR are achieved. As a result, this Order requires that discharges from the Facility during dry-weather must comply with effluent limitations calculated based on CTR criteria and SIP methods, as described in section IV.C.8 of this Fact Sheet. Within this Order, "dry-weather" is assumed for any discharge that occurs when the flow is less than 63 cfs as measured at S28 in the Dominguez Channel.

The TMDL specifies that although no allocation for PAHs is assigned to the Facility, monitoring shall continue for the discharges. Therefore, this Order includes monitoring for PAHs.

b. Interim Effluent Limitations

i. Interim Limits

Interim limits for chronic toxicity and metals (copper, lead, and zinc) apply to discharges to the Torrance Lateral, including the discharges from Torrance Refinery (Regional Water Board Resolution No. R11-008, Attachment A, Interim Allocations 1.B). The interim limits included in this permit for the TMDL based metals are based on the historical Outfall 001 discharge data and are more stringent than the interim limits specified in the Attachment A to Resolution No. R11-008, Interim Allocations. The following interim limits are effective for a period of 4.5 years and will expire on May 12, 2018:

Table F-4. Interim Effluent Limitations - Discharge Point No. 001

Pollutant	Units	Maximum Daily Effluent Limitation
Total Copper	µg/L	39.8
Total lead	µg/L	114
Total zinc	µg/L	619
Chronic toxicity	TUc	2

ii. Compliance Schedule

On March 13, 2013, ExxonMobil submitted a Compliance Plan to identify and implement controls to comply with the final limits given in this Order based on Harbor Toxics TMDL. The compliance schedule is for 4.5 years and will expire on May 12, 2018.

The compliance plan is organized into separate tasks. The scope of the task and estimated time for completion is given for each task.

Task 1: Pollutant Source Identification

Complete a review of plant data for the potential sources of copper, lead, and zinc,. A monitoring program will be established, based on the review of the potential sources of these metals. Collection of in-plant monitoring samples (at O'Brien Lake) for the above constituents will be attempted quarterly; however, the specific sampling frequency will be dependent upon the rainfall duration and intensity during the compliance schedule period. Offsite storm water originating from the City of Torrance will be sampled from the channel that drains onto the refinery property.

Samples collected during this program will also be tested for chronic toxicity for the three aquatic test species identified in the permit. Sufficient sample volume will be collected to conduct a toxicity identification evaluation ("TIE") if the sample exhibits sublethal toxicity that exceeds the Harbor Toxics TMDL final limit ($TU_c > 1.0$). If a storm water sample exhibits chronic toxicity for any of the three species specified in the permit, a TIE will be conducted on that sample

In order to be representative of discharges from Outfall 001, samples will be collected during/following significant rainfall events that fill a minimum of 50% of the refinery's total storm water storage capacity (38.2 million gallons).

If specific sources of pollutants are identified and determined to be quantitatively significant after the monitoring and review steps, control strategies will be developed to either minimize pollutant concentrations or eliminate the source of the pollutants.

The pollutant monitoring and review needed to develop the control strategy is expected to take 40 months. This task will begin October 12, 2013.

Task 2: Review of Outfall Sampling Location and Techniques

The official sampling station for the point of discharge to the Torrance Lateral is at O'Brien Lake, which is upstream of the Parshall flume. Historically, samples have been collected at the surface of O'Brien Lake. For this task, storm water samples will be collected in O'Brien Lake at different depths and locations within the lake to ensure that compliance samples accurately represent discharge concentrations.

The time period for completion of this task is 40 months and work will be initiated on October 12, 2013.

Task 3. Review Storm Water Management Practices and Predicted Discharge Frequency

The refinery has implemented storm water management practices to collect and store storm water runoff from the refinery and the City of Torrance drainage system. The Refinery's storm water pollution prevention plan and best management practices plan will be reviewed to determine if additional management practices are necessary to continue minimizing the frequency and volume of storm water discharges. The storm water balance will be evaluated to include recent rainfall data to determine if updates are required.

The time period for completion of this task is 14 months. This task will begin October 12, 2014.

Task 4. Review Discharge Treatment Evaluation

The evaluation study will consider the frequency, duration, and intensity of rainfall events as well as the variable storm water quality and quantity.

If treatment of the storm water discharge is required to meet final limits and is technically feasible for the intermittent storm water discharge, additional steps will follow, which may include pilot-testing, engineering design, permitting, and installation.

The preliminary engineering evaluations will take 12 months. This task will begin October 12, 2015.

All and especially Tasks 1 and 2 will occur concurrently. ExxonMobil will submit a progress report at the end of each calendar year (the first report is due by December 31, 2014, and the last report will be submitted by December 17, 2017) to the Executive Officer of the Regional Water Board

c. Harbor Toxics TMDL Water Column Compliance Monitoring Program

The TMDL's implementation schedule to demonstrate attainment of WLAs and load allocations is 20 years after the TMDL effective date for any Discharger, who justifies the need for that length of time. During this period, the Discharger is required, either individually or with a collaborating group, to develop a monitoring and reporting plan (Monitoring Plan) and quality assurance project plan (QAPP) for the water column in the Torrance Lateral, and Dominguez Channel Estuary. These plans shall follow the "TMDL Element – Monitoring Plan" provisions in Attachment A to Resolution No. R11-008. The Monitoring Plan and QAPP shall be submitted 20 months after the effective date of the TMDL. Participating in the collaborative water quality monitoring program and submittal of the monitoring plan and QAPP will constitute compliance with the requirement. The compliance monitoring program shall include water column monitoring.

E. Other Plans, Polices and Regulations

Not Applicable

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: Section 122.44(a) requires that permits include applicable technology-based limitations and standards; and Section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

The existing Order established effluent limitations for a number of pollutants believed to be present in the discharge of storm water from a petroleum refining facility and urban runoff from the City of Torrance. Effluent limitations in the existing permit were established for oil and grease, total organic carbon (TOC), chromium (VI), total suspended solids (TSS), turbidity, settleable solids, bacteria, xylene, copper, lead, zinc, nickel, mercury, total petroleum hydrocarbons (TPH), benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, pH, temperature, and acute toxicity. These constituents were identified based on a review of pollutants commonly found in discharges from petroleum refining operations; materials stored or used on-site, and/or were historically detected in the effluent. Urban runoff from the City of Torrance will contain

pollutants including oil and grease, trace metals, and solids, thus these pollutants remain pollutants of concern. Pollutants identified on the 303(d) list for the Torrance Lateral and the Dominguez Channel, identified in section III.D of this Fact Sheet, are also considered pollutants of concern. Storm water may carry a combination of pollutants that may contribute to acute toxicity. Therefore, toxicity, an indicator of the presence of toxic pollutants, is also considered a pollutant of concern.

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. Section 122.45(f)(1) requires that all permit limitations, standards or prohibitions be expressed in terms of mass units 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 technology-based permit limitations on a case-by-case basis limitations based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment. This Order includes mass-based effluent limitations, where appropriate, to comply with Section 122.45(f)(1).

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, the Water Code, and previous permit provisions, and they are consistent with the requirements set for other discharges to the Torrance Lateral and Dominguez Channel that are regulated by NPDES permits.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at Section 122.44, Title 40 of the Code of Federal Regulations, require that 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 must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with Part 125, Section 125.3.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

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

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and section 125.3 of the Code of Federal Regulations authorize the use of BPJ to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in section 125.3.

2. Applicable Technology-Based Effluent Limitations

Discharges from the Facility are subject to the federal effluent limitation guidelines in 40 CFR Part 419. The technology-based requirements in the Order are based on ELGs, case-by-case numeric limitations using BPJ, and anti-backsliding provisions.

The discharge does not contain process wastewater. Within the ROWD, the Discharger indicates that a negligible amount of process area wash water and steam condensate may commingle with the storm water discharge. Within 40 CFR 401.11(g) "process waste water" is defined as "*any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product*." The non-storm water contributions from process area washwater and steam condensate are not directly generated from refinery processes and at this time do not meet the definition "process waste waters".

The applicable ELGs include BPT, BAT, and BCT limits for contaminated runoff not commingled with process wastewater at 40 CFR 419.22(e)(1), 419.23(f)(1), and 419.24(e)(1). The BPT limits cover total organic carbon (TOC) and oil and grease. The BAT and BCT limits are the same as the BPT limits.

The technology-based effluent limitations for settleable solids, turbidity, and total petroleum hydrocarbons were developed using BPJ and are carried over from the existing Order No. R4-2007-0049. In issuing the previous Order, the Regional Water Board appropriately considered the treatment technology of settling. The receiving water impairment caused by pollutants in Torrance Lateral are likely to adhere to settleable solids, therefore, the existing limit in Order No. R4-2007-0049 is retained.

Order No. R4-2007-0049 requires the Discharger to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). This Order requires the Discharger to update and continue to implement the SWPPP. The revised SWPPP will reflect current operations, treatment activities, and staff responsible for implementing and supporting the SWPPP. The SWPPP will outline site-specific management processes for minimizing storm water contamination and for preventing contaminated storm water from being discharged directly into the storm drain. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water. This Order requires the Discharger to update the SWPPP consistent with requirements in Attachment G.

As a component of the SWPPP, the Discharger must identify Best Management Practices (BMPs) that address specific areas that are considered sources of pollutants. The BMPs shall include measures to minimize the amount of pollutants entering the discharge.

The Order requires the Discharger to update the Spill Prevention Control and Countermeasure (SPCC) Plan. The SPCC Plan is required in order to report on preventive and contingency (cleanup) procedures for controlling accidental discharges and for minimizing the adverse effects of such events.

The combination of the SWPPP, SPCC Plan, and Best Management Practices Plan (BMPP) and limitations reflecting BPJ will serve as the equivalent of technology-based effluent limitations, in order to carry out the purposes and intent of the CWA. Further discussion of SWPPP, BMPP, and SPCC Plan are provided in VII.B.3 of this Fact Sheet and Attachment G. Table F-4 summarizes the technology-based effluent limitations for Discharge Point No. 001.

Table F-5. Summary of Technology-based Effluent Limitations for Discharge Point No. 001.

Parameter	Units	Average Monthly	Maximum Daily
ELG Based Limitations			
Oil and Grease	mg/L	--	15
	lbs/day[1]	--	1,300
Carbon, Total Organic (TOC)	mg/L	--	110
	lbs/day[1]	--	9,200
BPJ Limitations			
Total Suspended Solids (TSS)	mg/L	--	75
	lbs/day[1]	--	6,300
Settleable Solids	mL/L	--	0.2
Turbidity	NTU	--	75

Parameter	Units	Average Monthly	Maximum Daily
Total Petroleum Hydrocarbons	µg/L	--	100
	lbs/day[1]	--	8.3

[1] The mass (lbs/day) limitations are based on a maximum flow of 10 MGD and is calculated as follows: Mass (lbs/day) = Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor). Results are rounded to two significant digits.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and Section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations 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 Section 122.44(d)(1)(vi).

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

The specific procedures for determining reasonable potential for discharges from the Facility, and if necessary for calculating WQBELs, are contained in the SIP.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As noted in section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to the Torrance Lateral and the Dominguez Channel Estuary summarized in section III.C.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Priority pollutant water quality criteria in the CTR are applicable to the Torrance Lateral. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, and in accordance with Section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. The Basin Plan states that "*waters not specifically listed (generally, smaller tributaries), are designated with the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary*". The Facility discharges to Torrance Lateral which subsequently discharges to Dominguez Channel Estuary. The beneficial uses identified in the Basin Plan for the Dominguez Channel Estuary are applicable to the Torrance Lateral. In this Order, freshwater criteria are used to protect the beneficial uses of the Torrance Lateral and Dominguez Channel Estuary. Previously, the Torrance Lateral was not included in the tables listing the beneficial uses. The Torrance Refinery was evaluated as if it discharged directly to the Dominguez Channel Estuary. As indicated in the Harbor Toxics TMDL, the Torrance Lateral is classified as freshwater waterbody. Based on this information, the Regional Water Board has determined it is appropriate to revaluate the discharge based on CTR freshwater aquatic life criteria.

Table F-5 summarizes the applicable water quality criteria/objective for priority pollutants that are included in the RPA for Order No. R4-2007-0049.

Table F-6. Applicable Water Quality Criteria

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria					
			Freshwater[1]		Saltwater[1]		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms[2]	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
5b	Chromium (VI)	11.43	16.29	11.43	N/A			--
6	Copper	5.2	7.3	5.2				--
7	Lead	1.3	34	1.3				--
8	Mercury	0.051	--	--				0.051
9	Nickel	29	261	29				4,600
11	Silver	1.23	1.23	--				--
12	Thallium	6.3	--	--				6.3
13	Zinc	67	67	67				--
19	Benzene	71	--	--				71
33	Ethylbenzene	29,000	--	--				29,000
39	Toluene	200,000	--	--				200,000
58	Anthracene	110,000	--	--				110,000
60	Benzo(a)-Anthracene	0.049	--	--				0.049

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria					
			Freshwater[1]		Saltwater[1]		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms[2]	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
61	Benzo(a)-Pyrene	0.049	--	--				0.049
62	Benzo(b)-Fluoranthene	0.049	--	--				0.049
68	Bis(2-ethylhexyl)-Phthalate	5.9	--	--				5.9
86	Fluoranthene	370	--	--				370
87	Fluorene	14,000	--	--				14,000
100	Pyrene	11,000	--	--				11,000

[1] A hardness of 50 mg/L, based on data provided in the Harbor Toxics TMDL, was used to adjust criteria.

[2] "N/A" indicates the receiving water body is not characterized as saltwater, nor are the water quality criteria for the protection of human health for the consumption of water and organisms applicable.

3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducts a Reasonable Potential Analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board identifies the MEC and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

1) Trigger 1 – If the MEC ≥ C, a limit is needed.

2) Trigger 2 – If the background concentration (B) > C and the pollutant is detected in the effluent, a limit is needed.

3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and receiving water data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification. There were no discharges from the Facility during the term of Order No. R4-2007-0049, beginning on October 6, 2007. For this Order, the data used to conduct an RPA for Order No. R4-2007-0049 were used to rerun the RPA based on use of the freshwater criteria in the CTR.

Table F-7. Summary Reasonable Potential Analysis

CTR No.	Constituent	Applicable Water Quality Criteria (C), µg/L	Max Effluent Conc. (MEC), µg/L	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
5b	Chromium (VI)	11.43	11	NA[1]	Yes	Trigger 3[2]
6	Copper	5.2	39.8	NA	Yes	MEC >C
7	Lead	1.3	171	NA	Yes	MEC >C
8	Mercury	0.051	0.262	NA	Yes	MEC >C
9	Nickel	29.02	33.5	NA	Yes	MEC >C
11	Silver	1.23	< 0.4	NA	No	ND in Effluent
12	Thallium	6.3	< 2.33	NA	No	ND in Effluent
13	Zinc	67	619	NA	Yes	MEC >C
19	Benzene	71	21	NA	No	MEC<C
33	Ethylbenzene	29,000	4.1	NA	No	MEC<C
39	Toluene	200,000	33	NA	No	MEC<C
58	Anthracene	110,000	4.2	NA	No	MEC<C
60	Benzo(a)-Anthracene	0.049	2.2	NA	Yes	MEC>C
61	Benzo(a)-Pyrene	0.049	1.9	NA	Yes	MEC>C
62	Benzo(b)-Fluoranthene	0.049	0.83	NA	Yes	MEC>C
68	Bis(2-ethylhexyl)-Phthalate	5.9	30	NA	Yes	MEC>C
86	Fluoranthene	370	5.5	NA	No	MEC<C

CTR No.	Constituent	Applicable Water Quality Criteria (C), µg/L	Max Effluent Conc. (MEC), µg/L	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
87	Fluorene	14,000	6.7	NA	No	MEC<C
100	Pyrene	11,000	12	NA	No	MEC<C

[1] "NA" indicates no background data for the Torrance Lateral were available for the RPA.

[2] As per Step 7 of the SIP, other information, such as facility type and discharge type may be considered in determining whether a WQBEL is required. The previous Order established an effluent limitation for chromium VI and this constituent is commonly present in storm water runoff from petroleum refineries. Therefore, in accordance with Section 1.3 of the SIP, the Regional Board has determined that there is a reasonable potential and this Order includes a WQBEL for chromium (VI)..

Based on the RPA, pollutants that demonstrate reasonable potential are chromium VI, copper, lead, mercury, nickel, zinc, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and bis(2-ethylhexyl)phthalate. Refer to Attachment J for a summary of the RPA and associated effluent limitation calculations.

4. WQBEL Calculations

a. If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in Section 1.4 of the SIP. These procedures include:

i. If applicable and available, use of the WLA established as part of a TMDL.

ii. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.

b. Since no discharges have occurred during the permit term, an RPA was performed using SIP procedures and effluent data included in Attachment J to Order No. R4-2007-0049. No ambient background data were available for the Torrance Lateral.

c. WQBELs for copper, lead, and zinc are based on the Harbor Toxics TMDL final wet-weather WLAs. Discharges are not anticipated during dry-weather, therefore the WLAs are protective of water quality objectives. This Order requires that discharges from the Facility during dry-weather must comply with effluent limitations calculated based on CTR criteria and SIP methods, as described in section IV.C.8 of this Fact Sheet. Within this Order, "dry-weather" is assumed for any discharge that is neither the result of precipitation nor the result of a

precipitation event of a magnitude that is less than 63 cubic feet per second (cfs) as measured at station S28 in the Dominguez Channel.

d. Order No. R4-2007-0049 included only MDELs since the discharge is primarily stormwater. The proposed permit continues to implement the policy. The discharge includes small amounts of non-storm water contributions from steam condensate and process area washdown water. Since the discharge is primarily storm water, discharges are of short duration (less than 24 hours) and infrequent (one in last 7 years); only daily maximum limits are prescribed. The RPA was rerun for WQBELs established in Order No. R4-2007-0049, including WQBELs which were based only on salt water human health or aquatic life criteria.

e. Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. The Torrance Lateral is dry for part of the year, therefore, in this Order, no dilution credit is being allowed. However, in accordance with the reopener provision in section VI.C.1.e in the Order, this Order may be reopened upon the submission by the Discharger of adequate information to establish appropriate dilution credits or a mixing zone, as determined by the Regional Water Board.

f. WQBELs Calculation Example

Using total recoverable nickel as an example, the following demonstrates how WQBELs were established for this Order. The tables in Attachment J summarize the development and calculation of all WQBELs for this Order using the process described below.

The process for developing these limits is in accordance with Section 1.4 of the SIP.

Calculation of aquatic life AMEL and MDEL:

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criterion, determine the effluent concentration allowance (ECA) using the following steady state equation:

$$ECA = C + D(C-B) \quad \text{when } C > B, \text{ and}$$
$$ECA = C \quad \text{when } C \leq B,$$

Where
- C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. A hardness of 50 mg/L, based on data provided in the Harbor Toxics TMDL, was used to adjust criteria. A pH of 6.5, representing the lower bound of the permit limits was used to adjust the criteria.
- D = The dilution credit, and
- B = The ambient background concentration

As discussed above, for this Order, dilution was not allowed; therefore:

$ECA = C$

For total recoverable nickel, the applicable water quality criteria are:

WLA_{acute}= 261 µg/L
$WLA_{chronic}$= 29 µg/L

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$LTA_{acute} = ECA_{acute} \times Multiplier_{acute\ 99}$

$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic\ 99}$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6. The default CV of 0.6 was used to calculate effluent limitations in Order No. R4-2006-0049 and will also be used for this Order.

For total recoverable nickel, the following data were used to develop the acute and chronic LTAs using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

No. of Samples	CV	ECA Multiplier$_{acute}$	ECA Multiplier$_{chronic}$
4	0.60	0.321	0.527

LTA_{acute} = 261 µg/L x 0.321 = 83.8µg/L

$LTA_{chronic}$ = 29 µg/L x 0.527 = 15.3 µg/L

Step 3: Select the most limiting (lowest) of the LTA.

LTA = most limiting of LTA_{acute} or $LTA_{chronic}$

For nickel, the most limiting LTA was the $LTA_{chronic}$

$LTA_{nickel} = LTA_{chronic}$ = 15.3 µg/L

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as AMEL and MDEL. The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the CV of the data set, the number of samples (for AMEL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$$AMEL_{aquatic\ life} = LTA \times AMEL_{multiplier\ 95}$$

$$MDEL_{aquatic\ life} = LTA \times MDEL_{multiplier\ 99}$$

AMEL multipliers are based on a 95th percentile occurrence probability, and the MDEL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For total recoverable nickel, the following data were used to develop the AMEL and MDEL for effluent limitations using equations provided in Section 1.4, Step 5 of the SIP:

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$
4	0.6	3.11	1.55

Total Recoverable Nickel

AMEL = 15.3 µg/L x 1.55 = 24 µg/L

MDEL= 15.3 µg/L x 3.11 = 48 µg/L

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{human\ health}$

$$AMEL_{human\ health} = ECA_{human\ health}$$

For nickel,

$$AMEL_{human\ health} = 4{,}600\ \mu g/L$$

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of the $Multiplier_{MDEL}$ to the $Multiplier_{AMEL}$. Table 2 of the SIP provides pre-

calculated ratios to be used in this calculation based on the CV and the number of samples.

$$MDEL_{human\ health} = AMEL_{human\ health} \times (Multiplier_{MDEL} / Multiplier_{AMEL})$$

For total recoverable nickel, the following data were used to develop the $MDEL_{human\ health}$:

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$	Ratio
4	0.6	3.11	1.55	2.0

For total recoverable nickel:

$MDEL_{human\ health}$= 4,600 µg/L x 2.0 = 9,200 µg/L

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the WQBEL for the Order.

Calculations for effluent limitations were performed for chromium VI, mercury, and nickel, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate. For nickel and chromium VI, the calculated limitations are based on chronic aquatic life criteria. For total recoverable mercury, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and bis(2-ethylhexyl)phthalate, no aquatic life criteria exist, therefore the calculated limitations are based on human health criteria. The newly calculated nickel WQBELs which are based on the fresh water criteria in this example are less stringent than the existing nickel WQBEL contained in Order No. R4-2007-0049 which were based on the salt water criteria. In this case, CWA section 402(o) prohibits the relaxation of this effluent limitation, therefore the existing effluent limitation for nickel from Order R4-2007-0049 is included in this Order. These limitations are expected to be protective of beneficial uses.

5. WQBELS based on Basin Plan Objectives

The Basin Plan Objectives applicable to the Discharger are identified in Table F-7. These objectives were evaluated with respect to historic effluent monitoring data and Facility operations.

Table F-8. Applicable Basin Plan Numeric Water Quality Objectives

Constituent	Units	Water Quality Objectives
pH	s.u.	The pH of inland surface waters must be between 6.5 and 8.5 at all times and ambient pH shall not be changed more than 0.5 units from natural conditions.
Ammonia	mg un-ionized NH_3/L	1-hour avg. concentration (mg/L) $= 0.275/(1+10^{7.204-pH}+ 39.4/(1+10^{pH-7.204})$

Constituent	Units	Water Quality Objectives
		30-day avg. concentration (mg/L) $= [0.0577/(1+10^{7.688-pH}) + 2.487/(1+10^{pH-7.688})]$ x MIN [2.85, 1.45 x $10^{0.028 \times (25-T)}$] 4-hr avg. concentration (mg/L) = 2.5 x 30-day average
Bacteria	MPN/ 100ml	*Freshwaters Designated for Water Contact Recreation (REC-1)* Geometric Means Limits *Escherichia coli* (*E. Coli*) density shall not exceed 126/100 ml. Single Sample Limits *E. Coli* density shall not exceed 235/100 ml
Dissolved Oxygen	mg/L	For all waters, the mean annual dissolved oxygen concentration shall be greater than 7 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.
Turbidity	NTU	Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU increases shall not exceed 10%.

a. pH. This Order includes effluent and receiving water limitations for pH to ensure compliance with Basin Plan Objectives for pH.

b. Ammonia. No effluent or receiving water data were available to evaluate the discharge with respect to ammonia concentrations in the receiving water. This Order requires effluent and receiving water monitoring to ensure compliance with Basin Plan Objectives for ammonia.

c. Bacteria. The Torrance Lateral and the Dominguez Channel Estuary are identified on the 2010 303(d) list as impaired for bacteria. To address bacteria as a pollutant of concern, this Order establishes new effluent limitations for bacteria, equal to the Basin Plan Objectives. These effluent limitations are consistent with the Bacteria TMDL.

d. Dissolved Oxygen. The receiving water limitation is protective of the Basin Plan Objective for dissolved oxygen.

e. Turbidity. The Basin Plan requirements for turbidity are as follows:

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

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

This Order applies the water quality objective for turbidity as a receiving water limitation in addition to the technology-based effluent limitation.

f. Temperature. Effluent limitations in Order No. R4-2007-0049 are based on the requirements of the Thermal Plan and a white paper developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. Based on that information, the maximum temperature limitation of 86°F was included in Order R4-2007-0049 and is included in this Order.

6. Whole Effluent Toxicity

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes, but is not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. This existing Order contains acute toxicity limitations and monitoring requirements in accordance with the Basin Plan, in which the acute toxicity objective for discharges dictates that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Consistent with Basin Plan requirements, this Order includes the acute toxicity limitations and monitoring requirements from Order No. R4-2007-0049.

7. Final WQBELs

Table F-9. Summary of Final WQBELs for Discharge Point No. 001

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	s.u.	--	--	6.5	8.5
Acute Toxicity	% Survival	[1]			
Chromium (VI), Total Recoverable	µg/L		16	--	--
	lbs/day[2]		1.3	--	--
E. Coli	MPN/ 100 ml	126[3]	235[4]	--	--
Temperature	°F	--	--	--	86

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L		7.3[7]	--	--
	lbs/day[2]		0.61[7]	--	--
Lead, Total Recoverable	µg/L		0.18[7]	--	--
	lbs/day[2]		0.1[7]	--	--
Mercury, Total Recoverable	µg/L		0.10	--	--
	lbs/day[2]		0.0083	--	--
Nickel, Total Recoverable	µg/L	--	14	--	--
	lbs/day[2]	--	1.2	--	--
Zinc, Total Recoverable	µg/L		67[7]		
	lbs/day[2]		5.6[7]		
Benzo(a)anthracene	µg/L		0.098	--	--
	lbs/day[2]		0.0082	--	--
Benzo(a)pyrene	µg/L		0.098	--	--
	lbs/day[2]		0.0082	--	--
Benzo(b)fluoranthene	µg/L		0.098	--	--
	lbs/day[2]		0.0082	--	--
Bis (2-ethylhexyl)phthalate	µg/L		12	--	--
	lbs/day[2]		1.0	--	--
Harbor Toxics TMDL Wet-weather Effluent Limitations					
Chronic Toxicity	Chronic Toxic Units	[5]			
Copper, Total Recoverable	kg/yr[6]	1.36			
Lead, Total Recoverable	kg/yr[6]	5.98			
Zinc, Total Recoverable	kg/yr[6]	9.75			

[1] The acute toxicity of the effluent shall be such that:

i. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, and

ii. No single test shall produce less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).

[2] The mass limitations are based on a maximum flow of 10 MGD and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. If the flow is greater than 10 MGD, the mass loading is to be recalculated using the event specific flow.

[3] Applied as a geometric mean. The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period, if possible).

[4] Applied as a single sample maximum.

[5] The maximum limit for chronic toxicity of 100% effluent shall not exceed 1.0 TUc in a critical life stage test.

[6] Annual effluent limitations. The mass (kg/yr) limitations were calculated based on a flow of 3.7 MGD for ten days per year and are calculated as follows: Flow volume (millions of gallons) x target concentration (mg/L) x 3.788 gal/L (conversion) x No. of days of discharge.

[7] Effluent limitations apply during dry weather only. Within this Order, dry-weather is assumed for any discharge that occurs when the flow is less than 63 cubic feet per second (cfs) as measured at station S28 in the Dominguez Channel.

D. Final Effluent Limitations

Section 402(o) of the CWA and 40 CFR 122.44(l) require final effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders. Effluent limitations for most constituents are being carried over from the previous Order No. R4-2007-0049. Removal of these numeric limitations would constitute backsliding under CWA section 402(o). This Order includes recalculated effluent limitations for chromium VI, copper (dry-weather), lead (dry-weather), mercury, and zinc (dry-weather) due to a change in receiving water status from saltwater to freshwater. The recalculated effluent limitations for nickel would be less stringent than in Order R4-2007-0049. A less stringent effluent limitation for nickel is not allowed under Section 402(o) of the CWA; therefore, the existing effluent limitation for nickel is carried over to this Order.

This Order also replaces the fecal coliform limitations that were based on salt water objectives, with E. coli limitations that are based on freshwater objectives. Resolution R10-005 replaced the Basin Plan objective for fecal coliform with an objective for E. coli, to provide equivalent protection of the receiving water beneficial uses from impairment due to bacteria. The Regional Water Board has determined that numeric effluent limitations for bacteria continue to be applicable to the Facility because of the storage of the storm water runoff in open ponds for extended periods of time.

The discharge includes small amounts of non-storm water contributions from steam condensate and process area washdown water. Since the discharge is primarily storm water, discharges are of short duration (less than 24 hours) and infrequent (one in the last 7 years) only daily maximum limits are prescribed. Furthermore, this Order includes final wet weather effluent limitations for copper, lead, and zinc based on the Harbor Toxics TMDL.

1. Satisfaction of Anti-Backsliding Requirements

Effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order with the exception of xylene. The Order contains a limit for TPH that serves as an indicator of effectiveness of the existing treatment system. As such, the technology-based limit for xylene is redundant. Since there are no numeric criteria for xylene in the receiving water, removal of this limit is not expected to result in water quality impacts. The limitation for TPH provides an equivalent assurance of performance and it does not allow for an increase in xylene in the discharge.

2. Satisfaction of Antidegradation Policy

Section 131.12 requires that the state water quality standards include an anti-degradation 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 where the federal policy applies under federal law. Resolution No. 68-16 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.

The permitted discharge is consistent with the antidegradation provision of Section 131.12 and State Water Board Resolution No. 68-16. The final limitations in this Order are in compliance with antidegradation requirements and meet the requirements of the SIP because these limits hold the Discharger to performance levels that will not cause or contribute to water quality impairment or water quality degradation that could result from an increase in the permitted flow or a reduction in the level of treatment. Further, compliance with these requirements will result in the use of best practicable treatment or control of the discharge.

3. Mass-based Effluent Limitations

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

Mass (lbs/day) = flow rate (MGD) x 8.34 x effluent limitation (mg/L)

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

For parameters with annual effluent limitations, mass-based effluent limitations (kg/yr) are calculated based on a flow of 3.7 MGD for ten days per year and are calculated as flow volume (millions of gallons) x target concentration (CTR acute criteria, mg/L) x 3.788 gal/L (conversion) x No. of days of discharge.

4. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on TOC, TSS, oil and grease, settleable solids, turbidity, xylene, and TPH at Discharge Point No. 001. Restrictions on these parameters are discussed in section IV.B.2 of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

This Order includes WQBELs for pH, acute and chronic toxicity, bacteria, temperature, chromium VI, copper, lead, mercury, nickel, zinc, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, bis (2-ethylhexyl)phthalate at Discharge Point No. 001. WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. The

remaining water quality objectives and beneficial uses implemented by this Order (specifically bacteria and ammonia) were approved by USEPA on December 5, 2011 and June 19, 2003. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Table F-10. Summary of Final Effluent Limitations for Discharge Point No. 001

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
pH	s.u.	--	--	6.5	8.5	BP, E
Oil and Grease	mg/L	--	15	--	--	ELG, E
	lbs/day[2]	--	1,300	--	--	
TSS	mg/L	--	75	--	--	E
	lbs/day[2]	--	6,255	--	--	
Non-conventional Pollutants						
Acute Toxicity	% Survival	[3]				BP, E
TOC	mg/L	--	110	--	--	ELG, E
	lbs/day[2]	--	9,200	--	--	
E. Coli	MPN/ 100mL	[4]	[5]	--	--	BP, TMDL
Settleable Solids	ml/L	--	0.2	--	--	BPJ, E
Temperature	°F	--	--	--	86	BP, TP, WP, E
TPH[6]	µg/L	--	100	--	--	BPJ
	lbs/day[2]	--	8.3	--	--	
Turbidity	NTU	--	75	--	--	BPJ, E
Priority Pollutants						
Chromium (VI), Total Recoverable	µg/L	--	16	--	--	CTR,SIP
	lbs/day[2]	--	1.3	--	--	
Copper, Total Recoverable	µg/L	--	7.3[9]	--	--	CTR,SIP
	lbs/day[2]	--	0.61[9]	--	--	
Lead, Total Recoverable	µg/L	--	2.2[9]	--	--	CTR,SIP
	lbs/day[2]	--	0.18[9]	--	--	
Mercury, Total Recoverable	µg/L	--	0.10	--	--	E, CTR, SIP
	lbs/day[2]	--	0.0083	--	--	
Nickel, Total Recoverable	µg/L	--	14	--	--	E, CTR, SIP
	lbs/day[2]	--	1.20	--	--	

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Zinc, Total Recoverable	µg/L	--	67[9]	--	--	CTR,SIP
	lbs/day[2]	--	5.6[9]	--	--	
Benzo(a)anthracene	µg/L	--	0.098	--	--	E, CTR, SIP
	lbs/day[2]	--	0.0082	--	--	
Benzo(a)pyrene	µg/L	--	0.098	--	--	E, CTR, SIP
	lbs/day[2]	--	0.0082	--	--	
Benzo(b)fluoranthene	µg/L	--	0.098	--	--	E, CTR, SIP
	lbs/day[2]	--	0.0082	--	--	
Bis (2-Ethylhexyl) Phthalate	µg/L	--	12	--	--	E, CTR, SIP
	lbs/day[2]	--	1.0	--	--	
Harbor Toxics TMDL Final Wet-weather Effluent (Unfiltered) Limitations for Discharge Point No. 001						
Chronic Toxicity	Chronic Toxic Units	[7]				TMDL
Copper, Total Recoverable	kg/yr[8]	1.36				TMDL
Lead, Total Recoverable	kg/yr[8]	5.98				TMDL
Zinc, Total Recoverable	kg/yr[8]	9.75				TMDL

[1] BP = Basin Plan; TP = Thermal Plan; E = Existing Order; BPJ = Best Professional Judgment; CTR = California Toxic Rule; SIP = State Implementation Policy; TMDL= Total Maximum Daily Load; and WP = White Paper.

[2] The mass limitations are based on a maximum flow of 10 MGD and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. If the flow is greater than 10 MGD, the mass loading is to be recalculated using the event specific flow.

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

[4] E. Coli density shall not exceed 126/100mL applied as a geometric mean. The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

[5] E. Coli density shall not exceed 235/100mL applied as a single sample maximum.

[6] TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH oil (C_{23+})

[7] The chronic toxicity of 100% effluent shall not exceed 1.0 TUc in a critical life stage test.

[8] Annual effluent limitations. The mass (kg/yr) limitations were calculated based on a flow of 3.7 MGD for ten days per year and are calculated as follows: Flow volume (millions of gallons) x target concentration (CTR acute criteria mg/L) x 3.785 gal/L (conversion) x No. of days of discharge. These limits become effective on May 13, 2018.

[9] Effluent limitations apply during dry weather only. Within this Order, dry-weather is assumed for any discharge that occurs when the flow is less than 63 cubic feet per second (cfs) as measured at station S28 in the Dominguez Channel.

E. Interim Effluent Limitations

Basin Plan Amendment incorporating Harbor Toxics TMDL (Regional Water Board Resolution No. R11-008, Attachment A, Interim Allocation 1.B), authorizes interim limits

for copper, lead, zinc, and chronic toxicity for discharges to Torrance Lateral. The interim limits for metals based on the Torrance Refinery's historical discharge data are more stringent than the interim limits specified in the Resolution No. R11-008. The interim limits are effective from the effective date of this Order until May 12, 2018, at Discharge Outfall EFF-001. Discharges from Outfall EFF-001 in excess of the following interim effluent limitations are prohibited:

Table F-11. Summary of Final Effluent Limitations for Discharge Point No. 001

Pollutant	Units	Maximum Daily Effluent Limitation
Total Copper	µg/L	39.8
Total lead	µg/L	114
Total zinc	µg/L	619
Chronic toxicity	TUc	2

F. Land Discharge Specifications

Not Applicable

G. Reclamation Specifications

Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains 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 (section 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order 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.

B. Sediment Monitoring of the Effluent

The Harbor Toxics TMDL requires attainment with the TMDL's final sediment allocations. This Order implements this requirement as mass-based annual effluent loadings for copper, lead, and zinc based on analyses of unfiltered effluent samples.

C. Groundwater

Not Applicable

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code Sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The MRP, Attachment E

of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

A. Influent Monitoring

Not Applicable

B. Effluent Monitoring

Monitoring for pollutants expected to be present in the discharge will be required as established in the MRP (Attachment E). The monitoring requirements included in this Order are consistent with those included in Order No. R4-2007-0049. This Order includes a maximum frequency during extended discharge of once per week for most of the pollutants. Monitoring for *E. Coli* and fecal coliform have been included to determine compliance with the established effluent limitations.

The SIP states that the Regional Water Board will require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established. This Order requires the Discharger to conduct annual monitoring for the remaining CTR priority pollutants and TCDD Equivalents. The Regional Water Board will use the additional data to conduct an RPA and determine if additional WQBELs are required. The Regional Water Board may reopen the permit to incorporate additional effluent limitations and requirements, if necessary.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. This Order includes limitations for both acute and chronic toxicity and therefore, monitoring requirements are included in the MRP to determine compliance with the effluent limitations established in Limitations and Discharge Requirements, Effluent Limitations, section IV.A.

The Harbor Toxics TMDL includes a freshwater final allocation for chronic toxicity equal to 1.0 $TU_{c.}$ Within this Order, the allocation is implemented as a chronic toxicity daily maximum effluent limitation equal to 1 TU_c.

D. Receiving Water Monitoring

1. Surface Water

Order No. R4-2007-0049 identifies the receiving water monitoring locations of R-001, R-002, and R-003 in the Dominguez Channel. Because the Facility Discharges to the Torrance Lateral, this Order requires the Discharger to move the upstream and downstream monitoring locations to the Torrance Lateral. Two receiving

monitoring stations RSW-001 and RSW-002 have been established in this Order. Torrance Lateral is an underground concrete pipe/channel upstream of Outfall 001. Therefore, RSW-001 and RSW-002 will be at the same location. The sampling location is defined as a location that is representative of the combined Outfall 001 and Torrance Lateral flows and is a minimum of 50 feet downstream from the confluence of the Torrance Lateral and Outfall 001. Documentation of the exact sampling location will be provided by the sampling contractor and provided to the Regional Board before any sampling is performed. Outfall RSW-001 will be sampled prior to discharge from Outfall 001 and RSW-002 will be monitored after commencement of the discharge from Outfall 001. .

Order No. R4-2007-0049 required Visual Monitoring of the receiving water. This Order discontinues this requirement, as the receiving water is not located at the Discharge site and contains runoff from other sources.

2. Groundwater

Not Applicable

E. Harbor Toxics TMDL Monitoring

The Basin Plan Amendment (R11-008), incorporating the Harbor Toxics TMDL into the Basin Plan includes monitoring requirements for Responsible Parties in the Dominguez Channel, Torrance Lateral, and Dominguez Channel Estuary. As a Responsible Party, the Discharger must analyze water and TSS samples for a suite of compounds including, at a minimum, metals, including lead, zinc, and copper, DDT, PCBs, benzo(a)anthrancene, benzo(a)pyrene, chrysene, phenanthrene, and pyrene. The details of monitoring for compliance with the TMDL are to be included in the Monitoring Plans, as specified in Special Provision VI.C.2.b. The goal of the required monitoring is to determine compliance with the assigned WLAs. The State Water Board website provides resources for stakeholders to develop Surface Water Ambient Monitoring Program (SWAMP) compatible Quality Assurance Project Plans (QAPPs) and select appropriate sampling method for your discharge. The website also provides the SWAMP QAPP advisor, which is an online tool designed to assist stakeholders in writing QAPPs.

F. Storm Water Monitoring Requirements

In order to evaluate the effectiveness of the SWPPP, rainfall monitoring and visual storm water monitoring are required during discharge events.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with Section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must

comply with all standard provisions and with those additional conditions that are applicable under Section 122.42.

B. Special Provisions

1. Reopener Provisions

These provisions are based on Section 123 and the previous Order. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan or revisions to the Harbor Toxics TMDL.

2. Special Studies and Additional Monitoring Requirements

a. Initial Investigation Toxicity Reduction Evaluation Workplan. This provision is based on section 4 of the SIP, Toxicity Control Provisions.

b. Chemical Use Report. The Discharger uses chemicals and proprietary additives which could affect the waste discharge; therefore, the Discharger shall develop a Chemical Use Report and submit to the Regional Water Board annually.

c. Harbor Toxics TMDL Water Column Compliance Monitoring Program. This provision is based on the Harbor Toxics TMDL Monitoring Plan on p. 22 and 23 of Resolution No. R11-008.

3. Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention Plan (SWPPP). The previous Order required the Discharger to develop and implement a SWPPP. This Order will require the Discharger to update and continue to implement a SWPPP. The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into the storm drain and/or the Torrance Lateral. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water. SWPPP requirements are included as Attachment G, based on 40 CFR 122.44(k).

b. Best Management Practices Plan (BMPP). This Order requires the Discharger to develop and implement a BMPP in order to reduce the amount of pollutants entering the discharge. The BMPP may be included as a component of the SWPPP. The purpose of the BMPP is to establish site-specific procedures that ensure proper operation and maintenance of equipment, to ensure that unauthorized non-storm water discharges (i.e., spills) do not occur at the Facility.

The Harbor Toxics TMDL addresses BMPs as follows:

"When permits for responsible parties are revised, the permits should provide mechanisms to make adjustments to the required BMPs as necessary to ensure their adequate performance. If proposed structural and non-structural BMPs adequately implement the waste load allocations then additional controls will not be necessary. Alternatively, if the proposed structural and non-structural BMPs selected prove to be inadequate then additional structural and non-structural BMPs or additional controls may be required."

Special Provision VI.C.3 requires the Discharger to develop, implement, and maintain a BMPP, as a component of the SWPPP, that incorporates requirements contained in Appendix G. Appendix G requires a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Considering that discharges are infrequent, Special Provision VI.C.3 and Appendix G requirements satisfy the TMDL component to address BMP performance for this Facility.

a. Spill Prevention Control and Countermeasure (SPCC) Plan. Under 40 CFR 112, the Discharger is required to develop and implement an SPCC Plan to control discharge of pollutants. The SPCC Plan shall include a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site. The SPCC Plan shall be site specific and shall cover all areas of the Facility. This provision is included in this Order to minimize and control the amount of pollutants discharged in case of a spill. This will ensure compliance with the Order and protect the beneficial uses of the receiving water. The Discharger shall review and update, if necessary, the SPCC Plan after each incident and make it available for the Facility personnel at all times.

4. Construction, Operation, and Maintenance Specifications

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

5. Special Provisions for Municipal Facilities (POTWs Only)

Not Applicable

6. Other Special Provisions

a. Emergency Provision

Under normal operating conditions and typical wet weather events, the Discharger is required to maintain effluent flow of 10 MGD or less. This anticipated flow is based on maximum flow recorded in February 1998. During an emergency storm event, flow restriction for this discharge could lead to potential flooding in the refinery which could result in additional pollutants contaminating the storm water. Therefore, during an emergency storm event, defined in this Order as the 50-year return period, 24-hour storm or an equivalent

chronic rainfall event, the Discharger may exceed a 10 MGD discharge to the receiving water. In the event of an emergency storm condition discharge, the Discharger shall continue to comply with effluent limitations for all pollutants.

7. Compliance Schedules

Not Applicable

VIII. PUBLIC PARTICIPATION

The Regional Water Board is considering the issuance of WDRs that will serve as a NPDES permit for ExxonMobil Oil Corporation, Torrance Refinery. As a step in the WDR adoption process, the Regional Water Board staff has developed revised tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

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

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these revised tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments must be received at the Regional Water Board offices by 5:00 p.m. on August 8, 2013.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **September 12, 2013**
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. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is **http://www.waterboards.ca.gov/losangeles** where you can access the current agenda for changes in dates and locations.

D. Nature of Hearing

This will be a formal adjudicative hearing pursuant to section 648 et seq. of Title 23 of the California Code of Regulations. Chapter 5 of the California Administrative Procedure Act (commencing with Section 11500 of the Government Code) will not apply to this proceeding.

Ex Parte Communications Prohibited: As a quasi-adjudicative proceeding, no board member may discuss the subject of this hearing with any person, except during the public hearing itself. Any communications to the Regional Water Board must be directed to staff.

E. Parties to the Hearing

The following are the parties to this proceeding:

1. The applicant/permittee

Any other persons requesting party status must submit a written or electronic request to staff not later than 20 business days before the hearing. All parties will be notified if other persons are so designated.

F. Public Comments and Submittal of Evidence

Persons wishing to comment upon or object to the tentative waste discharge requirements, or submit evidence for the Board to consider, are invited to submit them in writing to the above address. To be evaluated and responded to by staff, included in the Board's agenda folder, and fully considered by the Board, written comments must be received no later than close of business August 8, 2013. Comments or evidence received after that date will be submitted, ex agenda, to the Board for consideration, but only included in administrative record with express approval of the Chair during the hearing. Additionally, if the Board receives only supportive comments, the permit may be placed on the Board's consent calendar, and approved without an oral testimony.

G. Hearing Procedure

The meeting, in which the hearing will be a part of, will start at 9:00 a.m. Interested persons are invited to attend. Staff will present the matter under consideration, after which oral statements from parties or interested persons will be heard. For accuracy of the record, all important testimony should be in writing. The Board will include in the administrative record written transcriptions of oral testimony that is actually presented at the hearing. Oral testimony may be limited to 3 minutes maximum or less for each speaker, depending on the number of persons wishing to be heard. Parties or persons with similar concerns or opinions are encouraged to choose one representative to

speak. At the conclusion of testimony, the Board will deliberate in open or close session, and render a decision.

Parties or persons with special procedural requests should contact staff. Any procedure not specified in this hearing notice will be waived pursuant to section 648(d) of title 23 of the California Code of Regulations. Objections to any procedure to be used during this hearing must be submitted in writing not later than close of 15 business days prior to the date of the hearing. Procedural objections will not be entertained at the hearing.

H. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. 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

I. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the 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.

J. Register of Interested Persons

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

K. Additional Information

Requests for additional information or questions regarding this order should be directed to Mazhar Ali at (213) 576-6652.

ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

I. Implementation Schedule

A storm water pollution prevention plan (SWPPP) shall be developed and submitted to the Regional Water Board within 180 days following the adoption of this Order. The SWPPP shall be implemented for each facility covered by this Permit within 10 days of approval from the Regional Water Board, or 6-months from the date of the submittal of the SWPPP to the Regional Water Board (whichever comes first).

II. Objectives

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

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

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

III. Planning and Organization

A. Pollution Prevention Team

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

B. Review Other Requirements and Existing Facility Plans

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

IV. Site Map

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

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

PLANNING AND ORGANIZATION
Form Pollution Prevention Team
Review other plans

ASSESSMENT PHASE
Develop a site map
Identify potential pollutant sources
Inventory of materials and chemicals
List significant spills and leaks
Identify non-storm water discharges
Assess pollutant risks

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE

Non-structural BMPs

Structural BMPs

Select activity and site-specific BMPs

IMPLEMENTATION PHASE

Train employees

Implement BMPs

Conduct recordkeeping and reporting

EVALUATION / MONITORING

Conduct annual site evaluation

Review monitoring information

Evaluate BMPs

Review and revise SWPPP

The following information shall be included on the site map:

A. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, and ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.

B. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

C. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.

D. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.

E. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

V. List of Significant Materials

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

VI. Description of Potential Pollutant Sources

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

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

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

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

4. **Significant Spills and Leaks.** Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (USEPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], Parts 110, 117, and 302).

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

5. **Non-Storm Water Discharges.** Facility operators shall investigate the facility to identify all non-storm water discharges (except process area wash water and steam condensate) and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

   All non-storm water discharges (except process area wash water and steam condensate) shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

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

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

B. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with Section A.8. below.

VII. Assessment of Potential Pollutant Sources

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

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

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

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

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

VIII. Storm Water Best Management Practices

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

TABLE B

EXAMPLE
ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES
SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery. Spills caused by topping off fuel tanks. Hosing or washing down fuel oil fuel area. Leaking storage tanks. Rainfall running off fuel oil, and rainfall running onto and off fueling area.	fuel oil	Use spill and overflow protection. Minimize run-on of storm water into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur. Train employees on proper fueling, cleanup, and spill response techniques.

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

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

A. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional

structural BMPs (see Section VIII.B below). Below is a list of non-structural BMPs that should be considered:

1. **Good Housekeeping.** Good housekeeping generally consists of practical procedures to maintain a clean and orderly facility.

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

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

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

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

6. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

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

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

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

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

B. Structural BMPs.

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

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

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

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

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

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

IX. Annual Comprehensive Site Compliance Evaluation

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

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

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

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

D. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in Section A.10.e, for implementing SWPPP revisions, (v) any

incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions V.D.5 of Attachment D.

X. SWPPP General Requirements

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

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

C. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

D. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this Permit.

E. When any part of the SWPPP is infeasible to implement due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

F. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS

The Minimum Levels (MLs) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the State Water Board and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs. All concentration values are in micrograms per liter (µg/L).

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

*The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Benzo (a) Anthracene	10	5		
1,2 Dichlorobenzene (semivolatile)	2	2		
1,2 Diphenylhydrazine		1		
1,2,4 Trichlorobenzene	1	5		
1,3 Dichlorobenzene (semivolatile)	2	1		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		
2,4 Dimethylphenol	1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzidine		5		
Benzo(a) pyrene		10	2	
Benzo(g,h,i)perylene		5	0.1	
Benzo(k)fluoranthene		10	2	
bis 2-(1-Chloroethoxyl) methane		5		
bis(2-chloroethyl) ether	10	1		
bis(2-Chloroisopropyl) ether	10	2		
bis(2-Ethylhexyl) phthalate	10	5		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

** Phenol by colorimetric technique has a factor of 1.

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5

Table 2d – PESTICIDES – PCBs*	GC
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

* The normal method-specific factor for these substances is 100; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

Techniques:

GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR – Colorimetric

ATTACHMENT I – LIST OF PRIORITY POLLUTANTS

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
1	Antimony	7440360	[1]
2	Arsenic	7440382	[1]
3	Beryllium	7440417	[1]
4	Cadmium	7440439	[1]
5a	Chromium (III)	16065831	[1]
5a	Chromium (VI)	18540299	[1]
6	Copper	7440508	[1]
7	Lead	7439921	[1]
8	Mercury	7439976	[1]
9	Nickel	7440020	[1]
11	Selenium	7782492	[1]
11	Silver	7440224	[1]
12	Thallium	7440280	[1]
13	Zinc	7440666	[1]
14	Cyanide	57125	[1]
15	Asbestos	1332214	[1]
16	2,3,7,8-TCDD	1746016	[1]
17	Acrolein	117028	[1]
18	Acrylonitrile	117131	[1]
19	Benzene	71432	[1]
20	Bromoform	75252	[1]
21	Carbon Tetrachloride	56235	[1]
22	Chlorobenzene	118907	[1]
23	Chlorodibromomethane	124481	[1]
24	Chloroethane	75003	[1]
25	2-Chloroethylvinyl Ether	111758	[1]
26	Chloroform	67663	[1]
27	Dichlorobromomethane	75274	[1]
28	1,1-Dichloroethane	75343	[1]
29	1,2-Dichloroethane	117062	[1]
30	1,1-Dichloroethylene	75354	[1]
31	1,2-Dichloropropane	78875	[1]
32	1,3-Dichloropropylene	542756	[1]
33	Ethylbenzene	110414	[1]
34	Methyl Bromide	74839	[1]
35	Methyl Chloride	74873	[1]
36	Methylene Chloride	75092	[1]
37	1,1,2,2-Tetrachloroethane	79345	[1]
38	Tetrachloroethylene	127184	[1]
39	Toluene	118883	[1]
40	1,2-Trans-Dichloroethylene	156605	[1]
41	1,1,1-Trichloroethane	71556	[1]
42	1,12-Trichloroethane	79005	[1]
43	Trichloroethylene	79016	[1]
44	Vinyl Chloride	75014	[1]

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
45	2-Chlorophenol	95578	[1]
46	2,4-Dichlorophenol	120832	[1]
47	2,4-Dimethylphenol	115679	[1]
48	2-Methyl-4,6-Dinitrophenol	534521	[1]
49	2,4-Dinitrophenol	51285	[1]
50	2-Nitrophenol	88755	[1]
51	4-Nitrophenol	110027	[1]
52	3-Methyl-4-Chlorophenol	59507	[1]
53	Pentachlorophenol	87865	[1]
54	Phenol	118952	[1]
55	2,4,6-Trichlorophenol	88062	[1]
56	Acenaphthene	83329	[1]
57	Acenaphthylene	208968	[1]
58	Anthracene	120127	[1]
59	Benzidine	92875	[1]
60	Benzo(a)Anthracene	56553	[1]
61	Benzo(a)Pyrene	50328	[1]
62	Benzo(b)Fluoranthene	205992	[1]
63	Benzo(ghi)Perylene	191242	[1]
64	Benzo(k)Fluoranthene	207089	[1]
65	Bis(2-Chloroethoxy)Methane	111911	[1]
66	Bis(2-Chloroethyl)Ether	111444	[1]
67	Bis(2-Chloroisopropyl)Ether	118601	[1]
68	Bis(2-Ethylhexyl)Phthalate	117817	[1]
69	4-Bromophenyl Phenyl Ether	111553	[1]
70	Butylbenzyl Phthalate	85687	[1]
71	2-Chloronaphthalene	91587	[1]
72	4-Chlorophenyl Phenyl Ether	7005723	[1]
73	Chrysene	218019	[1]
74	Dibenzo(a,h)Anthracene	53703	[1]
75	1,2-Dichlorobenzene	95501	[1]
76	1,3-Dichlorobenzene	541731	[1]
77	1,4-Dichlorobenzene	116467	[1]
78	3,3'-Dichlorobenzidine	91941	[1]
79	Diethyl Phthalate	84662	[1]
80	Dimethyl Phthalate	131113	[1]
81	Di-n-Butyl Phthalate	84742	[1]
82	2,4-Dinitrotoluene	121142	[1]
83	2,6-Dinitrotoluene	606202	[1]
84	Di-n-Octyl Phthalate	117840	[1]
85	1,2-Diphenylhydrazine	122667	[1]
86	Fluoranthene	206440	[1]
87	Fluorene	86737	[1]
88	Hexachlorobenzene	118741	[1]
89	Hexachlorobutadiene	87863	[1]
90	Hexachlorocyclopentadiene	77474	[1]
91	Hexachloroethane	67721	[1]
92	Indeno(1,2,3-cd)Pyrene	193395	[1]

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
93	Isophorone	78591	[1]
94	Naphthalene	91203	[1]
95	Nitrobenzene	98953	[1]
96	N-Nitrosodimethylamine	62759	[1]
97	N-Nitrosodi-n-Propylamine	621647	[1]
98	N-Nitrosodiphenylamine	86306	[1]
99	Phenanthrene	85018	[1]
110	Pyrene	129000	[1]
111	1,2,4-Trichlorobenzene	120821	[1]
112	Aldrin	309002	[1]
113	alpha-BHC	319846	[1]
114	beta-BHC	319857	[1]
115	gamma-BHC	58899	[1]
116	delta-BHC	319868	[1]
117	Chlordane	57749	[1]
118	4,4'-DDT	50293	[1]
119	4,4'-DDE	72559	[1]
111	4,4'-DDD	72548	[1]
111	Dieldrin	60571	[1]
112	alpha-Endosulfan	959988	[1]
113	beta-Endosulfan	33213659	[1]
114	Endosulfan Sulfate	1131178	[1]
115	Endrin	72208	[1]
116	Endrin Aldehyde	7421934	[1]
117	Heptachlor	76448	[1]
118	Heptachlor Epoxide	1124573	[1]
119	PCB-1116	12674112	[1]
120	PCB-1221	11114282	[1]
121	PCB-1232	11141165	[1]
122	PCB-1242	53469219	[1]
123	PCB-1248	12672296	[1]
124	PCB-1254	11197691	[1]
125	PCB-1260	11196825	[1]
126	Toxaphene	8001352	[1]

[1] Pollutants shall be analyzed using the methods described in 40 CFR Part 136

ATTACHMENT J – EFFLUENT LIMITATIONS CALCULATIONS

Fact Sheet Attachment A

Draft Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)						Lowest C	REASONABLE POTENTIAL ANALYSIS (RPA)									
					Freshwater		Saltwater		Human Health for consumption of:												
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason
1	Antimony	ug/L								4300.00	4300.00			N					No detected value of B, Step 7		Ud	No effluent data & no B
2	Arsenic	ug/L			340.00	150.00					150.00			N					No detected value of B, Step 7		Ud	No effluent data & no B
3	Beryllium	ug/L		No Criteria						Narrative	No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
4	Cadmium	ug/L			2.07	1.43				Narrative	1.43			N					No detected value of B, Step 7		Ud	No effluent data & no B
5a	Chromium (III)				984.32	117.32				Narrative	117.32			N					No detected value of B, Step 7		Ud	No effluent data & no B
5b	Chromium (VI)	ug/L	0.6	11	16.29	11.43				Narrative	11.43	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
6	Copper	ug/L	0.6	39.8	7.29	5.16					5.16	Yes	Yes	N					No detected value of B, Step 7		Yes	MEC>=C
7	Lead	ug/L	0.6	171	33.78	1.32				Narrative	1.32	Yes	Yes	N					No detected value of B, Step 7		Yes	MEC>=C
8	Mercury	ug/L	0.6	0.262	Res	Res				0.051	0.051	Yes	Yes	N					No detected value of B, Step 7		Yes	MEC>=C
9	Nickel	ug/L	0.6	33.5	261.01	29.02				4600.00	29.02	Yes	Yes	N					No detected value of B, Step 7		Yes	MEC>=C
10	Selenium	ug/L			20.00	5.00				Narrative	5.00			N					No detected value of B, Step 7		Ud	No effluent data & no B
11	Silver	ug/L		0.4	1.23						1.23	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
12	Thallium	ug/L		2.33						6.30	6.30	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
13	Zinc	ug/L	0.6	619	66.60	66.60					66.60	Yes	Yes	N					No detected value of B, Step 7		Yes	MEC>=C
14	Cyanide	ug/L			22.00	5.20				220000.00	5.20			N					No detected value of B, Step 7		Ud	No effluent data & no B
15	Asbestos	Fibers/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
16	2,3,7,8 TCDD	ug/L	0.6							0.000000014	0.000000014			N					No detected value of B, Step 7		Ud	No effluent data & no B
	TCDD Equivalents	ug/L	0							0.000000014	0.000000014			N					No detected value of B, Step 7		Ud	No effluent data & no B
17	Acrolein	ug/L								780	780			N					No detected value of B, Step 7		Ud	No effluent data & no B
18	Acrylonitrile	ug/L								0.66	0.660			N					No detected value of B, Step 7		Ud	No effluent data & no B
19	Benzene	ug/L		21						71	71.0	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
20	Bromoform	ug/L								360	360.0			N					No detected value of B, Step 7		Ud	No effluent data & no B
21	Carbon Tetrachloride	ug/L		0.1						4.4	4.40	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
22	Chlorobenzene	ug/L								21000	21000			N					No detected value of B, Step 7		Ud	No effluent data & no B
23	Chlorodibromomethane	ug/L								34	34.00			N					No detected value of B, Step 7		Ud	No effluent data & no B
24	Chloroethane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
25	2-Chloroethylvinyl ether	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
26	Chloroform	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
27	Dichlorobromomethane	ug/L								46	46.00			N					No detected value of B, Step 7		Ud	No effluent data & no B
28	1,1-Dichloroethane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
29	1,2-Dichloroethane	ug/L		0.081						99	99.00	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
30	1,1-Dichloroethylene	ug/L		0.16						3.2	3.200	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
31	1,2-Dichloropropane	ug/L								39	39.00			N					No detected value of B, Step 7		Ud	No effluent data & no B
32	1,3-Dichloropropylene	ug/L								1700	1700			N					No detected value of B, Step 7		Ud	No effluent data & no B
33	Ethylbenzene	ug/L		4.1						29000	29000	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
34	Methyl Bromide	ug/L								4000	4000			N					No detected value of B, Step 7		Ud	No effluent data & no B
35	Methyl Chloride	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
36	Methylene Chloride	ug/L								1600	1600.0			N					No detected value of B, Step 7		Ud	No effluent data & no B
37	1,1,2,2-Tetrachloroethane	ug/L								11	11.00			N					No detected value of B, Step 7		Ud	No effluent data & no B
38	Tetrachloroethylene	ug/L								8.85	8.9			N					No detected value of B, Step 7		Ud	No effluent data & no B
39	Toluene	ug/L		33						200000	200000	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
40	1,2-Trans-Dichloroethylene	ug/L								140000	140000			N					No detected value of B, Step 7		Ud	No effluent data & no B
41	1,1,1-Trichloroethane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
42	1,1,2-Trichloroethane	ug/L								42	42.0			N					No detected value of B, Step 7		Ud	No effluent data & no B
43	Trichloroethylene	ug/L								81	81.0			N					No detected value of B, Step 7		Ud	No effluent data & no B
44	Vinyl Chloride	ug/L								525	525			N					No detected value of B, Step 7		Ud	No effluent data & no B
45	2-Chlorophenol	ug/L								400	400			N					No detected value of B, Step 7		Ud	No effluent data & no B
46	2,4-Dichlorophenol	ug/L								790	790			N					No detected value of B, Step 7		Ud	No effluent data & no B
47	2,4-Dimethylphenol	ug/L								2300	2300			N					No detected value of B, Step 7		Ud	No effluent data & no B
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L								765	765.0			N					No detected value of B, Step 7		Ud	No effluent data & no B
49	2,4-Dinitrophenol	ug/L								14000	14000			N					No detected value of B, Step 7		Ud	No effluent data & no B
50	2-Nitrophenol	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
51	4-Nitrophenol	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
53	Pentachlorophenol	ug/L		2.3	5.28	4.05				8.2	4.05	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
54	Phenol	ug/L								4600000	4600000			N					No detected value of B, Step 7		Ud	No effluent data & no B
55	2,4,6-Trichlorophenol	ug/L		3.6						6.5	6.5	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
56	Acenaphthene	ug/L		1.6						2700	2700	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
57	Acenaphthylene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
58	Anthracene	ug/L		4.2						110000	110000	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
59	Benzidine	ug/L								0.00054	0.00054			N					No detected value of B, Step 7		Ud	No effluent data & no B
60	Benzo(a)Anthracene	ug/L	0.6	2.2						0.049	0.0490	Yes	Yes	N					No detected value of B, Step 7		Yes	MEC>=C
61	Benzo(a)Pyrene	ug/L	0.6	1.9						0.049	0.0490	Yes	Yes	N					No detected value of B, Step 7		Yes	MEC>=C
62	Benzo(b)Fluoranthene	ug/L	0.6	0.83						0.049	0.0490	Yes	Yes	N					No detected value of B, Step 7		Yes	MEC>=C
63	Benzo(ghi)Perylene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria

Fact Sheet Attachment A

Draft Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)						Lowest C	REASONABLE POTENTIAL ANALYSIS (RPA)									
					Freshwater		Saltwater		Human Health for consumption of:												
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason
64	Benzo(k)Fluoranthene	ug/L		0.02						0.049	0.0490	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
65	Bis(2-Chloroethoxy)Methane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
66	Bis(2-Chloroethyl)Ether	ug/L								1.4	1.400			N					No detected value of B, Step 7		Ud	No effluent data & no B
67	Bis(2-Chloroisopropyl)Ether	ug/L								170000	170000			N					No detected value of B, Step 7		Ud	No effluent data & no B
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	30						5.9	5.9	Yes	Yes	N					No detected value of B, Step 7		Yes	MEC>=C
69	4-Bromophenyl Phenyl Ethe	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
70	Butylbenzyl Phthalate	ug/L								5200	5200			N					No detected value of B, Step 7		Ud	No effluent data & no B
71	2-Chloronaphthalene	ug/L								4300	4300			N					No detected value of B, Step 7		Ud	No effluent data & no B
72	4-Chlorophenyl Phenyl Ethe	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
73	Chrysene	ug/L								0.049	0.0490			N					No detected value of B, Step 7		Ud	No effluent data & no B
74	Dibenzo(a,h)Anthracene	ug/L		0.04						0.049	0.0490	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
75	1,2-Dichlorobenzene	ug/L								17000	17000			N					No detected value of B, Step 7		Ud	No effluent data & no B
76	1,3-Dichlorobenzene	ug/L								2600	2600			N					No detected value of B, Step 7		Ud	No effluent data & no B
77	1,4-Dichlorobenzene	ug/L								2600	2600			N					No detected value of B, Step 7		Ud	No effluent data & no B
78	3,3 Dichlorobenzidine	ug/L								0.077	0.08			N					No detected value of B, Step 7		Ud	No effluent data & no B
79	Diethyl Phthalate	ug/L								120000	120000			N					No detected value of B, Step 7		Ud	No effluent data & no B
80	Dimethyl Phthalate	ug/L								2900000	2900000			N					No detected value of B, Step 7		Ud	No effluent data & no B
81	Di-n-Butyl Phthalate	ug/L								12000	12000			N					No detected value of B, Step 7		Ud	No effluent data & no B
82	2,4-Dinitrotoluene	ug/L		1.9						9.10	9.10	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
83	2,6-Dinitrotoluene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
84	Di-n-Octyl Phthalate	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
85	1,2-Diphenylhydrazine	ug/L								0.54	0.540			N					No detected value of B, Step 7		Ud	No effluent data & no B
86	Fluoranthene	ug/L		5.5						370	370	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
87	Fluorene	ug/L		6.7						14000	14000	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
88	Hexachlorobenzene	ug/L								0.00077	0.00077			N					No detected value of B, Step 7		Ud	No effluent data & no B
89	Hexachlorobutadiene	ug/L								50	50.00			N					No detected value of B, Step 7		Ud	No effluent data & no B
90	Hexachlorocyclopentadiene	ug/L								17000	17000			N					No detected value of B, Step 7		Ud	No effluent data & no B
91	Hexachloroethane	ug/L		2.4						8.9	8.9	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
92	Indeno(1,2,3-cd)Pyrene	ug/L		0.012						0.049	0.0490	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
93	Isophorone	ug/L								600	600.0			N					No detected value of B, Step 7		Ud	No effluent data & no B
94	Naphthalene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
95	Nitrobenzene	ug/L								1900	1900			N					No detected value of B, Step 7		Ud	No effluent data & no B
96	N-Nitrosodimethylamine	ug/L								8.10	8.10000			N					No detected value of B, Step 7		Ud	No effluent data & no B
97	N-Nitrosodi-n-Propylamine	ug/L								1.40	1.400			N					No detected value of B, Step 7		Ud	No effluent data & no B
98	N-Nitrosodiphenylamine	ug/L								16	16.0			N					No detected value of B, Step 7		Ud	No effluent data & no B
99	Phenanthrene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
100	Pyrene	ug/L		12						11000	11000	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
101	1,2,4-Trichlorobenzene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
102	Aldrin	ug/L			3.00					0.00014	0.00014			N					No detected value of B, Step 7		Ud	No effluent data & no B
103	alpha-BHC	ug/L								0.013	0.0130			N					No detected value of B, Step 7		Ud	No effluent data & no B
104	beta-BHC	ug/L		0.0082						0.046	0.046	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
105	gamma-BHC	ug/L		0.02	0.95					0.063	0.063	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
106	delta-BHC	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
107	Chlordane	ug/L			2.4	0.0043				0.00059	0.00059			N					No detected value of B, Step 7		Ud	No effluent data & no B
108	4,4'-DDT	ug/L			1.1	0.001				0.00059	0.00059			N					No detected value of B, Step 7		Ud	No effluent data & no B
109	4,4'-DDE (linked to DDT)	ug/L								0.00059	0.00059			N					No detected value of B, Step 7		Ud	No effluent data & no B
110	4,4'-DDD	ug/L								0.00084	0.00084			N					No detected value of B, Step 7		Ud	No effluent data & no B
111	Dieldrin	ug/L			0.24	0.056				0.00014	0.00014			N					No detected value of B, Step 7		Ud	No effluent data & no B
112	alpha-Endosulfan	ug/L		0.0052	0.22	0.056				240	0.0560	No	No	N					No detected value of B, Step 7		No	Ud;MEC<C & no B
113	beta-Endolsulfan	ug/L			0.22	0.056				240	0.0560			N					No detected value of B, Step 7		Ud	No effluent data & no B
114	Endosulfan Sulfate	ug/L								240	240			N					No detected value of B, Step 7		Ud	No effluent data & no B
115	Endrin	ug/L			0.086	0.036				0.81	0.0360			N					No detected value of B, Step 7		Ud	No effluent data & no B
116	Endrin Aldehyde	ug/L								0.81	0.81			N					No detected value of B, Step 7		Ud	No effluent data & no B
117	Heptachlor	ug/L			0.52	0.0038				0.00021	0.00021			N					No detected value of B, Step 7		Ud	No effluent data & no B
118	Heptachlor Epoxide	ug/L			0.52	0.0038				0.00011	0.00011			N					No detected value of B, Step 7		Ud	No effluent data & no B
119-125	PCBs sum (2)	ug/L				0.014				0.00017	0.00017			N					No detected value of B, Step 7		Ud	No effluent data & no B
126	Toxaphene	ug/L			0.73	0.0002				0.00075	0.0002			N					No detected value of B, Step 7		Ud	No effluent data & no B

Notes:

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR Water Quality Criteria

C = Water Quality Criteria

B = Background receiving water data

Fact Sheet Attachment A
Draft Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		Organisms only			Saltwater / Freshwater / Basin Plan												
		AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL		
1	Antimony															No Limit	
2	Arsenic															No Limit	
3	Beryllium															No Limit	
4	Cadmium															No Limit	
5a	Chromium (III)															No Limit	
5b	Chromium (VI)		2.01		0.32	5.23	0.53	6.03	5.23	1.55	8.12	3.11	16.29328	8.12151	16.29328		
6	Copper		2.01		0.32	2.34	0.53	2.72	2.34	1.55	3.63	3.11	7.28566	3.63	7.29		Interim Limits from TMDL apply during wet-weather
7	Lead		2.01		0.32	10.85	0.53	0.69	0.69	1.55	1.08	3.11	2.162636	1.08	2.16		Interim Limits from TMDL apply during wet-weather
8	Mercury	0.051	2.01	0.10232						1.55		3.11		0.05100	0.10232		
9	Nickel		2.01		0.32	83.81	0.53	15.31	15.31	1.55	23.76	3.11	47.6696	23.76127	47.66960		
10	Selenium															No Limit	
11	Silver															No Limit	
12	Thallium															No Limit	
13	Zinc		2.01		0.32	21.38	0.53	35.13	21.38	1.55	33.20	3.11	66.59684	33.20	66.60		Interim Limits from TMDL apply during wet-weather
14	Cyanide															No Limit	
15	Asbestos															No Limit	
16	2,3,7,8 TCDD															No Limit	
	TCDD Equivalents															No Limit	
17	Acrolein															No Limit	
18	Acrylonitrile															No Limit	
19	Benzene															No Limit	
20	Bromoform															No Limit	
21	Carbon Tetrachloride															No Limit	
22	Chlorobenzene															No Limit	
23	Chlorodibromomethane															No Limit	
24	Chloroethane															No Limit	
25	2-Chloroethylvinyl ether															No Limit	
26	Chloroform															No Limit	
27	Dichlorobromomethane															No Limit	
28	1,1-Dichloroethane															No Limit	
29	1,2-Dichloroethane															No Limit	
30	1,1-Dichloroethylene															No Limit	
31	1,2-Dichloropropane															No Limit	
32	1,3-Dichloropropylene															No Limit	
33	Ethylbenzene															No Limit	
34	Methyl Bromide															No Limit	
35	Methyl Chloride															No Limit	
36	Methylene Chloride															No Limit	
37	1,1,2,2-Tetrachloroethane															No Limit	
38	Tetrachloroethylene															No Limit	
39	Toluene															No Limit	
40	1,2-Trans-Dichloroethylene															No Limit	
41	1,1,1-Trichloroethane															No Limit	
42	1,1,2-Trichloroethane															No Limit	
43	Trichloroethylene															No Limit	
44	Vinyl Chloride															No Limit	
45	2-Chlorophenol															No Limit	
46	2,4-Dichlorophenol															No Limit	
47	2,4-Dimethylphenol															No Limit	
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)															No Limit	
49	2,4-Dinitrophenol															No Limit	
50	2-Nitrophenol															No Limit	
51	4-Nitrophenol															No Limit	
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)															No Limit	
53	Pentachlorophenol															No Limit	
54	Phenol															No Limit	
55	2,4,6-Trichlorophenol															No Limit	
56	Acenaphthene															No Limit	
57	Acenaphthylene															No Limit	
58	Anthracene															No Limit	
59	Benzidine															No Limit	
60	Benzo(a)Anthracene	0.049	2.01	0.09830						1.55		3.11		0.04900	0.09830		
61	Benzo(a)Pyrene	0.049	2.01	0.09830						1.55		3.11		0.04900	0.09830		
62	Benzo(b)Fluoranthene	0.049	2.01	0.09830						1.55		3.11		0.04900	0.09830		
63	Benzo(ghi)Perylene															No Limit	

Fact Sheet Attachment A

Draft Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS									LIMITS			
		Organisms only			Saltwater / Freshwater / Basin Plan												
		AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL	Recommendation	Comment
64	Benzo(k)Fluoranthene															No Limit	
65	Bis(2-Chloroethoxy)Methane															No Limit	
66	Bis(2-Chloroethyl)Ether															No Limit	
67	Bis(2-Chloroisopropyl)Ether															No Limit	
68	Bis(2-Ethylhexyl)Phthalate	5.9	2.01	11.83652						1.55		3.11		5.90000	11.83652		
69	4-Bromophenyl Phenyl Ethe															No Limit	
70	Butylbenzyl Phthalate															No Limit	
71	2-Chloronaphthalene															No Limit	
72	4-Chlorophenyl Phenyl Ethe															No Limit	
73	Chrysene															No Limit	
74	Dibenzo(a,h)Anthracene															No Limit	
75	1,2-Dichlorobenzene															No Limit	
76	1,3-Dichlorobenzene															No Limit	
77	1,4-Dichlorobenzene															No Limit	
78	3,3 Dichlorobenzidine															No Limit	
79	Diethyl Phthalate															No Limit	
80	Dimethyl Phthalate															No Limit	
81	Di-n-Butyl Phthalate															No Limit	
82	2,4-Dinitrotoluene															No Limit	
83	2,6-Dinitrotoluene															No Limit	
84	Di-n-Octyl Phthalate															No Limit	
85	1,2-Diphenylhydrazine															No Limit	
86	Fluoranthene															No Limit	
87	Fluorene															No Limit	
88	Hexachlorobenzene															No Limit	
89	Hexachlorobutadiene															No Limit	
90	Hexachlorocyclopentadiene															No Limit	
91	Hexachloroethane															No Limit	
92	Indeno(1,2,3-cd)Pyrene															No Limit	
93	Isophorone															No Limit	
94	Naphthalene															No Limit	
95	Nitrobenzene															No Limit	
96	N-Nitrosodimethylamine															No Limit	
97	N-Nitrosodi-n-Propylamine															No Limit	
98	N-Nitrosodiphenylamine															No Limit	
99	Phenanthrene															No Limit	
100	Pyrene															No Limit	
101	1,2,4-Trichlorobenzene															No Limit	
102	Aldrin															No Limit	
103	alpha-BHC															No Limit	
104	beta-BHC															No Limit	
105	gamma-BHC															No Limit	
106	delta-BHC															No Limit	
107	Chlordane															No Limit	
108	4,4'-DDT															No Limit	
109	4,4'-DDE (linked to DDT)															No Limit	
110	4,4'-DDD															No Limit	
111	Dieldrin															No Limit	
112	alpha-Endosulfan															No Limit	
113	beta-Endolsulfan															No Limit	
114	Endosulfan Sulfate															No Limit	
115	Endrin															No Limit	
116	Endrin Aldehyde															No Limit	
117	Heptachlor															No Limit	
118	Heptachlor Epoxide															No Limit	
119-125	PCBs sum (2)															No Limit	
126	Toxaphene															No Limit	

Notes:
Ud = Undetermined due to lack of da
Uc = Undetermined due to lack of C
C = Water Quality Criteria
B = Background receiving water data