

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

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ORDER NO. R4-2010-0161
NPDES NO. CA0063908

**WASTE DISCHARGE REQUIREMENTS
FOR HEXION SPECIALTY CHEMICALS
(Formerly Resolution Specialty Materials, Inc.)
LYNWOOD FACILITY**

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

Table 1. Discharger Information

Discharger	Hexion Specialty Chemicals
Name of Facility	Hexion Specialty Chemicals – Lynwood Facility
Facility Address	2801 Lynwood Road
	Lynwood, CA 90262
	Los Angeles County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a minor discharge.	

The discharge by Hexion Specialty Chemicals 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	Treated storm water runoff	33° 55' 34 " N	118° 13' 13" W	Compton Creek

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	September 2, 2010
This Order shall become effective on:	October 2, 2010
This Order shall expire on:	August 10, 2015
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:	February 11, 2015

IT IS HEREBY ORDERED, that Order No. R4-2005-0029 is terminated upon the effective date of this Order 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 pursuant thereto, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted pursuant thereto, the Discharger shall comply with the requirements in this Order.

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 2, 2010.



Samuel Unger, 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	Hexion Specialty Chemicals
Name of Facility	Hexion Specialty Chemicals – Lynwood Facility
Facility Address	2801 Lynwood Road
	Lynwood, CA 90262
	Los Angeles County
Facility Contact, Title, and Phone	John Dang, EHS Manager, (310) 884 – 5553
Mailing Address	2801 Lynwood Road Lynwood, CA 90262
Type of Facility	Polyester and Alkyd Resin Manufacturer
Facility Design Flow	0.34 million gallons per day (MGD) (storm water runoff)

II. FINDINGS

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

A. Background. Hexion Specialty Chemicals (hereinafter Discharger), is currently discharging pursuant to Order No. R4-2005-0029 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0063908. The Lynwood facility (hereinafter Facility) is owned by Hexion Specialty Chemicals. The Discharger submitted a Report of Waste Discharge, dated October 7, 2009, and applied for an NPDES permit renewal to discharge up to 0.340 million gallons per day (MGD) of storm water runoff from undiked areas of the Facility. The application was deemed complete on July 2, 2010.

Resolution Specialty Materials LLC, the former discharger, merged with and into Borden Chemical, Inc. The name of the merged company changed to Hexion Specialty Chemicals, Inc., on or about May 31, 2005.

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 operates a polyester and alkyd (i.e., oil-modified polyester) resins manufacturing facility for paint production at 2801 Lynwood Road, Lynwood, California and discharges up to 0.34 MGD of storm water runoff from undiked areas. The Facility consists of both diked zones and undiked zones. Storm water discharge from the diked areas (i.e., areas within secondary containment) is treated (by the Facility’s pretreatment system) and discharged to the sanitary sewer under an industrial wastewater sewer permit. This NPDES permit prohibits the discharge of storm water from diked areas through Discharge Point No. 001. Storm water collected in the undiked areas is treated by an on-site storm water treatment system consisting of four sand filters, a backwash sand filter storage tank, an additive injection system and a water storage tank. The treated storm water is then discharged through Discharge Point No. 001 (see table on cover page) to Compton Creek (via a storm drain), a water of the United States, and a tributary to Los Angeles River. Compton Creek is part of the Los Angeles River Watershed. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. 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 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 Regulations¹, 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. 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.

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) 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).

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 TMDLs, to better assess cumulative impacts of pollutants from all point and non-point 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-based controls. These controls should provide the pollution reduction necessary for water body to meet water quality standards. This process

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

facilitates the development of watershed-specific solutions that balance the environment and economic impacts within the watershed. The TMDLs will establish waste load allocations (WLAs) and load allocations (LAs).

The USEPA approved the State's 2006 303(d) list of impaired water bodies on June, 28, 2007. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2006 303(d) list and have been scheduled for TMDL development. The Facility discharges into Compton Creek. The 2006 State Water Board's California 303(d) List classifies Compton Creek as impaired. The pollutants of concern include coliform bacteria and trash. The following were developed and adopted TMDLs for the Los Angeles River, to which Compton Creek is a tributary:

Trash TMDL: The Los Angeles River Trash TMDL was adopted by the Regional Water Board on September 19, 2001. The TMDL established a numeric target of zero trash in the Los Angeles River. The TMDL was to be implemented via storm water permits in a phased reduction for a period of 10 years. The Los Angeles River Trash TMDL was approved by the State Water Board on February 19, 2002, and Office of Administrative Law (OAL) on July 16, 2002. The USEPA approved the trash TMDL on August 1, 2002, and it became effective on August 28, 2002. There were a number of challenges to the Los Angeles River Trash TMDL. The consideration of the challenges resulted in a requirement that the TMDL be set aside and not implemented until the CEQA requirements had been satisfied. On June 8, 2006, the Regional Water Board adopted a resolution to set aside the adopted TMDL. On July 17, 2006, the State Water Board adopted Resolution No. 2006-0051, setting the TMDL aside. An amendment to the Los Angeles River Trash TMDL (Resolution No. 2007-012) was adopted by the Regional Water Board on August 9, 2007. The State Water Board approved the TMDL on April 15, 2008. OAL approved the trash TMDL on July 1, 2008. The USEPA approved the trash TMDL on July 24, 2008, and it became effective on September 23, 2008. This TMDL will be implemented through Municipal Separate Storm Sewer Systems (MS4) NPDES Permit Program. However, this permit implements requirements for a storm water pollution prevention plan which is expected to minimize/prevent the discharge of trash from the Facility to the Los Angeles River watershed. The Order is consistent with the intent of Resolution No. 2007-012.

Nutrient TMDL for Los Angeles River: The Regional Water Board adopted Resolution No. 03-009 on July 10, 2003, that amended the Basin Plan to incorporate a TMDL for Nutrients (Nitrogen Compounds and related effects) in the Los Angeles River. The TMDL was approved by the State Water Board and Office of Administrative Law on November 19, 2003, and February 27, 2004, respectively. The Nutrients TMDL was approved by USEPA on March 18, 2004, and it became effective on March 23, 2004. Subsequently, Resolution No. 03-016 which revised the interim effluent limitations for ammonia was adopted by the Regional Water Board on December 4, 2003. The State Water Board approved the TMDL with Resolution 2004-0014 on March 24, 2004. OAL approved the TMDL on September 27, 2004, and it became effective on the same date. Resolution Nos. 03-009 and 03-016 establish WLAs for the Los Angeles River, to which Compton Creek is a tributary, for total ammonia and nitrate-nitrogen. The TMDL establishes WLAs for total ammonia (nitrogen), nitrate-nitrogen, nitrite-nitrogen, and

nitrate-nitrogen plus nitrite-nitrogen. Effluent limitations based on these WLAs have been established in this Order.

Metals TMDL for Los Angeles River: The Regional Water Board adopted Resolution No. 2005-006 on June 2, 2005, that amended the Basin Plan to incorporate a TMDL for metals in the Los Angeles River. The State Water Board approved the metals TMDL on October 20, 2005, and OAL approved the TMDL on December 9, 2005. The USEPA approved the metals TMDL on December 22, 2005, and it became effective on January 11, 2006. The metals TMDL establishes numeric water quality targets that are based on objectives established by USEPA in the CTR. An amendment to the metals TMDL (Resolution No. R2007-014) was adopted by the Regional Water Board on September 6, 2007. The State Water Board and OAL approved the metals TMDL, on June 17, 2008, and October 17, 2008, respectively. USEPA approved the metals TMDL on October 14, 2008, and it became effective on October 29, 2008. Resolution No. R2007-014 establishes WLAs in Compton Creek for cadmium, copper, lead, and zinc. This permit implements the conditions of Resolution No. R2007-014.

- 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. Beneficial uses applicable to the Compton Creek are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Compton Creek (Hydrologic Unit No. 405.15)	<u>Existing:</u> Ground Water Recharge (GWR); Water Contact Recreation (REC-1) ¹ , Non-Contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Wildlife Habitat (WILD); Wetland Habitat (WET). <u>Potential:</u> Municipal and Domestic Supply (MUN)*

¹ Access prohibited by Los Angeles DPW.

* Arterixed MUN designation under SB 88-63 and RB-03 may be considered for exceptions at a later date.

Requirements of this Order implement the Basin 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. Requirements of this Order implement the Thermal Plan.

Title 22 of the California Code of Regulations. The California Department of Public Health established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are

codified in Title 22, California Code of Regulations (Title 22). The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect the groundwater recharge beneficial use when that receiving groundwater is designated as MUN. Also, the Basin Plan specifies that "Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore, the secondary MCL's, are appropriate water quality criteria incorporated to protect groundwater quality.

Ammonia Basin Plan Amendment. The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Table 3-1 through Table 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The amendment reflects the revised water quality criteria developed by USEPA in the "1999 Update of Ambient Water Quality Criteria for Ammonia," December 1999. The 1999 Update contains USEPA's most recent freshwater aquatic life criteria for ammonia and supersedes all previous freshwater aquatic life criteria for ammonia. The ammonia Basin Plan amendment was approved by the State Water Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with USEPA's 1999 ammonia criteria update.

J. 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.

K. 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.

L. Compliance Schedules and Interim Requirements. Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Water Quality Control Plan Los Angeles Region, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include compliance schedules or interim effluent limitations.

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 C.F.R. § 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 5-day biochemical oxygen demand at 20°C (BOD₅ 20°C), total suspended solids (TSS), oil and grease, and phenols. Restrictions on BOD₅, TSS, oil and grease, and phenols are discussed in Section IV.B of the Fact Sheet (Attachment F). This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

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. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs 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. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

- O. 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 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)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Some effluent limitations in this Order are less stringent than those in the previous Order. As discussed in detail in the Fact Sheet this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.
- 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. 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. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B, IV.C, V.B, and VI.C of this Order are included to implement state law only. These provisions/requirements are not required

or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

U. 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.

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 supercedes Order No. R4-2005-0029 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 Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

- A.** Wastes discharged shall be limited to a maximum of 0.34 MGD of storm water from undiked areas through Discharge Point No. 001 as described in the findings. The discharge of wastes from accidental spills or other sources through Discharge Point No. 001 is prohibited.
- B.** Discharges of storm water from diked areas through Discharge Point No. 001 are prohibited.
- C.** Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, the Compton Creek, or other waters of the State, are prohibited.
- D.** Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or a nuisance as defined by Section 13050 of the Water Code.
- E.** Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
- F.** 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 Resources Control 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 Board will revise and modify this Order in accordance with such more stringent standards.

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

H. 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 – Discharge Point No. 001

1. Final Effluent Limitations – Discharge Point No. 001

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 MRP (Attachment E):

Table 6. Effluent Limitations – Discharge Point No. 001

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	pH Units	---	---	6.5	8.5
Temperature	°F	---	---	---	86
BOD ₅	mg/L	---	30	---	---
	lbs/day ¹	---	85	---	---
Total Suspended Solids (TSS)	mg/L	---	75	---	---
	lbs/day ¹	---	213	---	---
Total Dissolved Solids (TDS)	mg/L	---	1500	---	---
	lbs/day ¹	---	4250	---	---
Oil and Grease	mg/L	---	15	---	---
	lbs/day ¹	---	43	---	---
Phenols	mg/L	---	1.0	---	---
	lbs/day ¹	---	2.8	---	---
Sulfate	mg/L	---	350	---	---
	lbs/day ¹	---	990	---	---
Chloride	mg/L	---	150	---	---
	lbs/day ¹	---	430	---	---
Total Ammonia (as nitrogen) ²	mg/L	---	10.1	---	---
	lbs/day ¹	---	27	---	---
Nitrate-nitrogen (NO ₃ -N) ³	mg/L	8	---	---	---
	lbs/day ¹	23	---	---	---
Nitrite-nitrogen (NO ₂ -N) ³	mg/L	1	---	---	---
	lbs/day ¹	2.8	---	---	---
Nitrate-nitrogen + Nitrite-nitrogen (NO ₃ -N + NO ₂ -N) ³	mg/L	8	---	---	---
	lbs/day ¹	23	---	---	---
Cadmium, Total Recoverable (Wet-weather) ⁴	µg/L	---	3.1	---	---
	lbs/day ¹	---	8.8	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable (Dry-weather) ⁴	µg/L	---	30	---	---
	lbs/day ¹	---	85	---	---
Copper, Total Recoverable (Wet-weather) ⁴	µg/L	---	17	---	---
	lbs/day ¹	---	48	---	---
Lead, Total Recoverable (Dry-weather) ⁴	µg/L	---	15	---	---
	lbs/day ¹	---	43	---	---
Lead, Total Recoverable (Wet-weather) ⁴	µg/L	---	62	---	---
	lbs/day ¹	---	180	---	---
Zinc, Total Recoverable (Dry-weather) ⁴	µg/L	---	353	---	---
	lbs/day ¹	---	1000	---	---
Zinc, Total Recoverable (Wet-weather) ⁴	µg/L	---	159	---	---
	lbs/day ¹	---	450	---	---
Acute Toxicity	% Survival	See b below			

1. The mass-based effluent limitations are based on a flow of 0.34 MGD and are calculated as follows:
Mass emission rate (lbs/day) = Concentration (mg/L) x Flow (mgd) x 8.34 (conversion factor)
2. This limitation is based on the ammonia one-hour average WLA in nitrogen compounds TMDL.
3. Since there are no daily maximum WLAs established in the TMDL, the monthly average WLAs are used. The Discharger must demonstrate compliance with the monthly average limitations.
4. Dry-Weather effluent limitations are applicable when the maximum daily flow in the Los Angeles River at Willow Street gage station at Wardlow (Wardlow station) is less than 500 cubic feet per second (cfs). Wet-Weather effluent limitations are applicable when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cfs. The daily flow data at Wardlow station is posted on the Department of Public Works, Los Angeles County web site at <http://ladpw.org/wrd/report/0506/runoff/>.

b. Acute Toxicity: 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 tests shall be at least 90%, and
- ii. No single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP.
- iii. The Discharger shall conduct acute toxicity monitoring as specified in the MRP.

2. Interim Effluent Limitations – Not Applicable

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

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 Compton Creek.

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°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. Water Contact Standards

a. State/Regional Water Board Water Contact Standards:

In fresh water designated for water contact recreation (REC-1), the waste discharged shall not cause the following bacterial standards to be exceeded in the receiving water:

i. Geometric Mean Limits

(a) E. coli density shall not exceed 126/100 ml.

(b) Fecal coliform density shall not exceed 200/100 ml.

ii. Single Sample Maximum (SSM) Limits

(a) E. coli density shall not exceed 235/100 ml.

(b) Fecal coliform density shall not exceed 400/100 ml.

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 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 28, 2002, Resolution No. 2002-011 was approved by State Water Board, Office of Administrative Law (OAL) and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect.
6. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.

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 BOD₅ 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 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 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, maximum daily effluent limitation, instantaneous minimum effluent limitation, instantaneous maximum effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (213) 576-6616 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. (Wat. 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 RPA.
- c.** This Order may be reopened and modified, to incorporate in accordance with the provisions set forth in Parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new 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 Compton Creek.
- 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 Toxicity Reduction Evaluation (TRE) workplan (1-2 pages) **within 90 days** of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity 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).

3. Best Management Practices and Pollution Prevention

The Discharger shall submit the following to the Regional Water Board **within 90 days** of the effective date of this Order:

- a. An updated Storm Water Pollution Prevention Plan (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 through Discharge Point No. 001. The updated SWPPP shall accurately reflect current facility conditions and incorporate changes in discharge practice. The SWPPP shall be developed in accordance with the requirements in Attachment G.
- b. An updated Best Management Practice Plan (BMPP) that includes site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The BMPP shall be consistent with the general guidance contained in the USEPA Guidance Manual for Developing Best Management Practices (BMPs) (EPA 833-B-93-004). 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.
- c. An updated Spill Prevention Control and Countermeasure (SPCC) Plan that shall be site-specific and shall cover all areas of the Facility.

Each plan shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge points; describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material.

The SWPPP, BMPP, and SPCC Plan shall be reviewed at a minimum once per year. Updated information shall be submitted within 30 days of revisions.

4. Construction, Operation and Maintenance Specifications – Not Applicable

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 Minimum Level (see Reporting Requirement I.G. of the MRP), then the Discharger is out of compliance.

B. 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 "Detected, but Not Quantified" (DNQ) or "Not Detected" (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.

C. 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 Minimum Level (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 “Not-Detected (ND)” or “Detected, but Not Quantified (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.

D. 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.

E. 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).

F. 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).

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.

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).

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 fresh water 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)

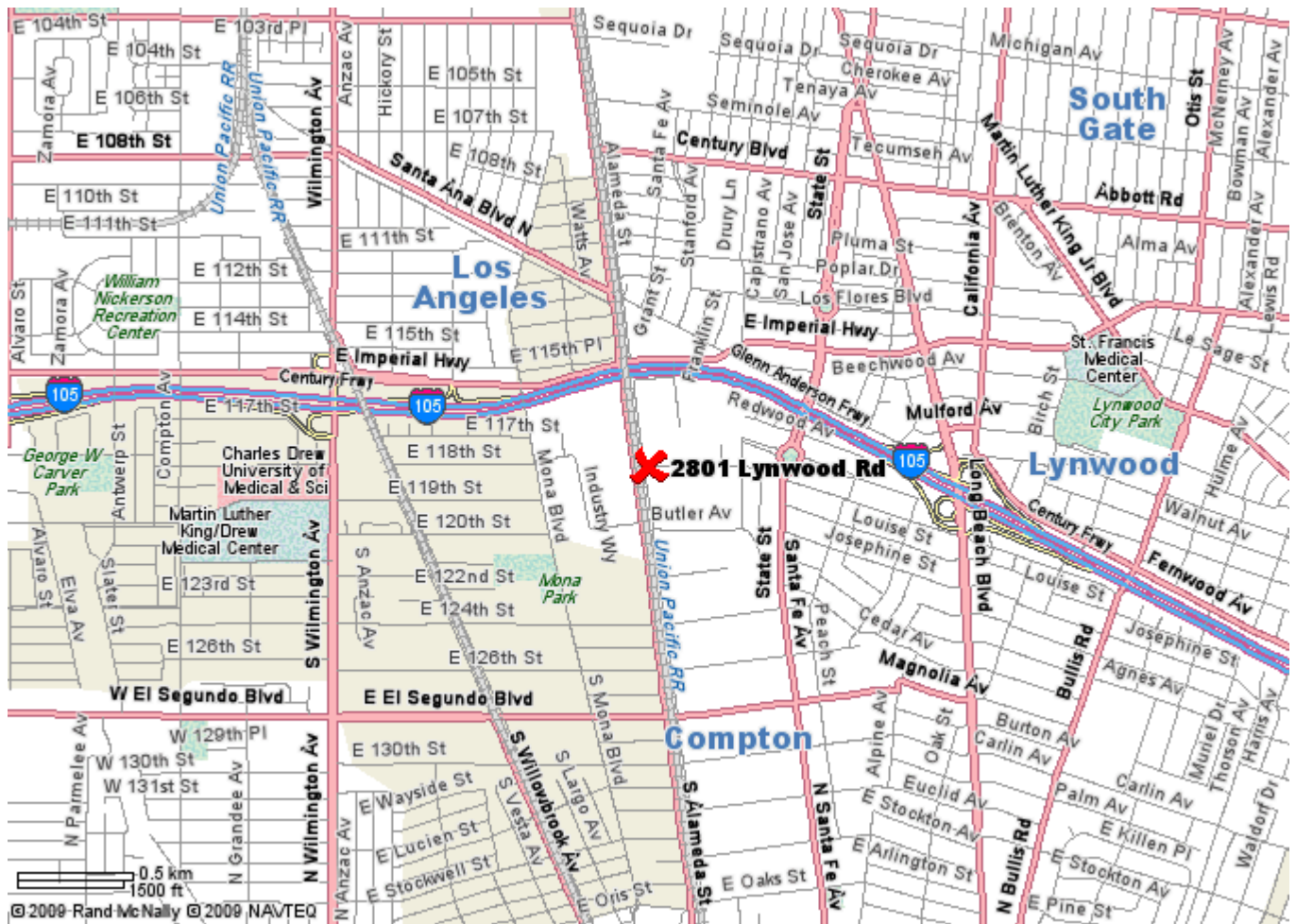
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection 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 °C
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	Hexion Specialty Chemicals
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	Hexion Specialty Chemicals Lynwood Facility
g/kg.....	grams per kilogram
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
ng/L	nanograms per liter
NOEC.....	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System

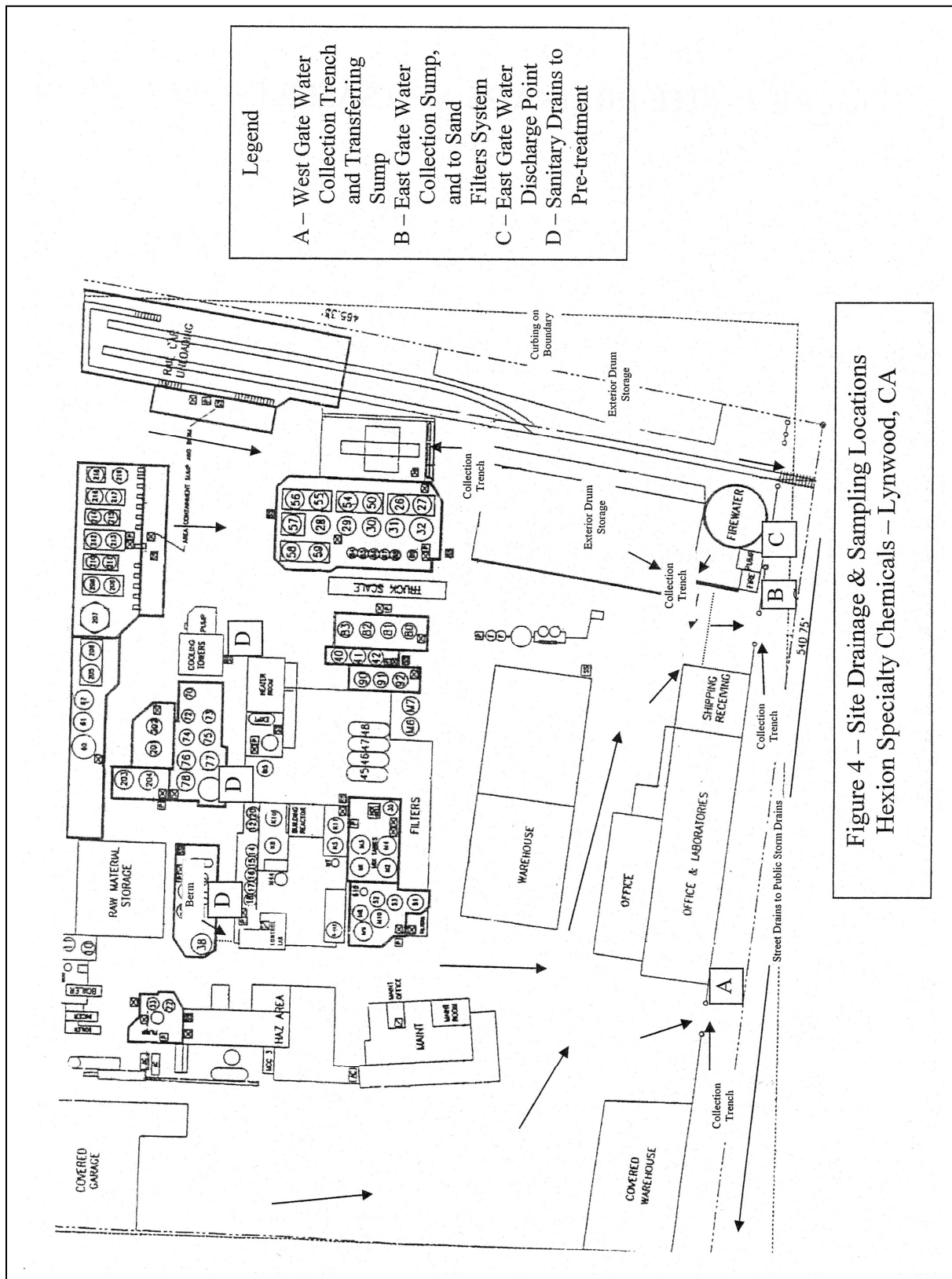
NSPS.....	New Source Performance Standards
NTR	National Toxics Rule
OAL	Office of Administrative Law
PAHs	Polynuclear Aromatic Hydrocarbons
pg/L	picograms per liter
PMEL.....	Proposed Maximum Daily Effluent Limitation
PMP.....	Pollutant Minimization Plan
POTW.....	Publicly Owned Treatment Works
ppm	parts per million
ppb	parts per billion
QA	Quality Assurance
QA/QC.....	Quality Assurance/Quality Control
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
SCP	Spill Contingency Plan
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
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 Solid
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



Hexion Specialty Chemicals – Lynwood Facility
2801 Lynwood Road
Lynwood, CA 90262

ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. 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
 - i. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [section 122.41(m)(1)(i)].
 - ii. "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 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)].
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [section 122.41(l)(1)(iii)].

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 ($\mu\text{g/L}$) [section 122.42(a)(1)(i)];
 - b. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ 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 ($\mu\text{g/L}$) [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. 7655)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 7655

The Code of Federal Regulations section 122.48 requires that all 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 the point of discharge (Discharge Point No. 001 Latitude 33°55'34", Longitude 118°13'13") 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 March 12, 2007); 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 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. The estimated chemical concentration of the sample shall also be reported; 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 Part 136 (revised March 12, 2007);
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 chain of custody, including but not limited to data 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. 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, 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.

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 (include Latitude and Longitude when available)
001	EFF-001	A location where a representative sample of effluent can be obtained from Discharge Point No. 001, prior to discharge into Compton Creek.
---	RSW-001	A location where a representative sample of the receiving water can be obtained upstream of the public storm drain outfall to the Compton Creek.
---	RSW-002	The Los Angeles County Department of Public Works' Willow Street Gage Station at Wardlow.*

* The daily flow data at Wardlow station is posted on the Department of Public Works, Los Angeles County web site at <http://ladpw.org/wrd/report/0506/runoff/>.

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor treated storm water discharge at Monitoring Location EFF-001 as follows. 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:

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

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Waste Flow	Gal/day	Calculated	1/Discharge Event ¹	--
Temperature	°F	Grab	1/Discharge Event ¹	²
pH	pH Units	Grab	1/Discharge Event ¹	²
Total Suspended Solids	mg/L	Grab	1/Discharge Event ¹	²
Total Dissolved Solids	mg/L	Grab	1/Discharge Event ¹	²
Biochemical Oxygen Demand (BOD ₅ @20 °C)	mg/L	Grab	1/Discharge Event ¹	²
Oil and Grease	mg/L	Grab	1/Discharge Event ¹	²

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Phenols	mg/L	Grab	1/Discharge Event ¹	²
Sulfate	mg/L	Grab	1/Discharge Event ¹	²
Chloride	mg/L	Grab	1/Discharge Event ¹	²
Total Ammonia (as nitrogen)	mg/L	Grab	1/Discharge Event ¹	²
Nitrate-nitrogen (NO ₃ -N)	mg/L	Grab	1/Discharge Event ¹	²
Nitrite-nitrogen (NO ₂ -N)	mg/L	Grab	1/Discharge Event ¹	²
Cadmium, Total Recoverable	µg/L	Grab	1/Discharge Event ¹	²
Copper, Total Recoverable	µg/L	Grab	1/Discharge Event ¹	²
Lead, Total Recoverable	µg/L	Grab	1/Discharge Event ¹	²
Nickel, Total Recoverable	µg/L	Grab	1/Discharge Event ¹	²
Zinc, Total Recoverable	µg/L	Grab	1/Discharge Event ¹	²
Bromoform	µg/L	Grab	1/Discharge Event ¹	²
Chlorodibromomethane	µg/L	Grab	1/Discharge Event ¹	²
Chloroform	µg/L	Grab	1/Discharge Event ¹	²
Dichlorobromomethane	µg/L	Grab	1/Discharge Event ¹	²
Ethylbenzene	µg/L	Grab	1/Discharge Event ¹	²
Toluene	µg/L	Grab	1/Discharge Event ¹	²
E. Coli	MPN/100ml	Grab	1/Year ³	²
Fecal Coliform	MPN/100ml	Grab	1/Year ³	²
Total Petroleum Hydrocarbons (TPH) as Gasoline (C ₄ – C ₁₂)	µg/L	Grab	1/Year ³	EPA method 503 or 8015b
TPH as Diesel (C ₁₃ – C ₂₂)	µg/L	Grab	1/Year ³	EPA method 503.1, 8015b or 8270
TPH as Waste Oil (C ₂₃₊)	µg/L	Grab	1/Year ³	EPA method 524.1, 8015b or 8270
Total Organic Carbon	mg/L	Grab	1/Year ³	²
Chemical Oxygen Demand	mg/L	Grab	1/Year ³	²
Remaining Priority Pollutants ⁴	µg/L	Grab	1/Year ³	²
Acute Toxicity ⁵	% Survival	Grab	1/Year ³	²
TCDD Equivalents ⁶	pg/L	Grab	1/Year ³	²

¹ During periods of extended or intermittent discharge, no more than one sample per week needs to be taken. 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.

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

³ Monitoring is required once per year during the storm event in the first quarter of the year. If no discharge occurs in the first quarter of the year, samples should be taken at the first discharge of the year. Monitoring is only required during years in which a discharge occurs.

⁴ Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.J of the Limitations and Discharge Requirements of this Order, and included as Attachment I. All metals shall be reported as total recoverable.

⁵ Refer to Section V, Whole Effluent Toxicity Testing Requirements.

⁶ TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), toxicity equivalency factors (TEFs), and bioaccumulation equivalency factors (BEFs) are as provided 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.

$$\text{Dioxin-TEQ (TCDD equivalents)} = \sum (C_x \times \text{TEF}_x \times \text{BEF}_x)$$

where:

C_x = concentration of dioxin or furan congener x

TEF_x = TEF for congener x

BEF_x = BEF for congener x

Congeners	Minimum Level (pg/L)	Toxicity Equivalence Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8 - tetra CDD	10	1.0	1.0
1,2,3,7,8 - penta CDD	50	1.0	0.9
1,2,3,4,7,8 - hexa CDD	50	0.1	0.3
1,2,3,6,7,8 - hexa CDD	50	0.1	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01	0.05
Octa CDD	100	0.0001	0.01
2,3,7,8 - tetra CDF	10	0.1	0.8
1,2,3,7,8 - penta CDF	50	0.05	0.2
2,3,4,7,8 - penta CDF	50	0.5	1.6
1,2,3,4,7,8 - hexa CDF	50	0.1	0.08
1,2,3,6,7,8 - hexa CDF	50	0.1	0.2
1,2,3,7,8,9 - hexa CDF	50	0.1	0.6
2,3,4,6,7,8 - hexa CDF	50	0.1	0.7
1,2,3,4,6,7,8 - hepta CDFs	50	0.01	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01	0.4
Octa CDF	100	0.0001	0.02

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

1. Definition of Acute Toxicity.

Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be measured in percent survival measured in undiluted (100%) effluent.

- a. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
- b. No single test shall produce less than 70% survival.

2. Acute Toxicity Effluent Monitoring Program

- a. Method. The Discharger shall conduct acute toxicity tests (96-hour static renewal toxicity tests) on effluent grab samples by methods specified in 40 CFR Part 136 which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821/R-02/012) or a more recent edition to ensure compliance. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

- b. Test Species. The fathead minnow, *Pimephales promelas* (Acute Toxicity Test Method 2000.0), shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish effluent. However, if the salinity of the receiving water is between 1 to 32 parts per thousand (ppt), the Discharger may have the option of using the inland silverside, *Menidia beryllina* (Acute Toxicity Test Method 2006.0), instead of the topsmelt. The method for topsmelt (Larval Survival and Growth Test Method 1006.0) is found in USEPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition, August 1995* (EPA/600/R-95/136).
- c. Alternate Reporting. For the acute toxicity testing with topsmelt, the Discharger may elect to report the results or endpoint from the first 96 hours of the chronic toxicity test as the results of the acute toxicity test, using USEPA's August 1995 method (EPA/600/R-95/136) to conduct the chronic toxicity test.
- d. Acute Toxicity Accelerated Monitoring. If either of the above requirements (sections 1.a and 1.b) is not met, the Discharger shall conduct six additional tests, approximately every 2 weeks, over a 12-week period (or over the next six storm events for storm water monitoring). The Discharger shall ensure that they receive results of a failing toxicity test within 24 hours of the close of the test and the additional tests shall begin within 5 business days of the receipt of the result. If the additional tests indicate compliance with the toxicity limitation, the Discharger may resume regular testing.
- e. Toxicity Identification Evaluation (TIE).
 - i. If the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall immediately begin a Toxicity Identification Evaluation (TIE) and implement the Initial Investigation Toxicity Reduction Evaluation (TRE) workplan. The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.
 - ii. If the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately begin a Toxicity Identification Evaluation (TIE) and implement Initial Investigation Toxicity Reduction Evaluation (TRE) workplan. Once the sources are identified the Discharger shall take all reasonable steps to reduce toxicity to meet the requirements.

B. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and/or EPA/821-R-02-014), then the Discharger must re-sample and re-test at the earliest time possible.
3. Control and dilution water should be receiving water (if non-toxic) or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the water the test species are grown in (culture water), a second control using culture water shall be used.

C. Preparation of an Initial Investigation TRE Workplan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Water Board for approval within **90 days** of the effective date of this permit. If the Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Discharger shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

1. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
2. A description of the Facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility; and,
3. 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). See MRP Section V.E.3. for guidance manuals.

D. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)

1. If results of the implementation of the Facility's initial investigation TRE workplan indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 30 days of completion of the initial investigation TRE. The detailed workplan shall include, but not be limited to:
 - a. Further actions to investigate and identify the cause of toxicity;
 - b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and
 - c. A schedule for these actions.

2. The following section summarizes the stepwise approach used in conducting the TRE:
 - a. Step 1 includes basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE;
 - b. Step 2 evaluates optimization of the treatment system operation, Facility housekeeping, and selection and use of in-plant process chemicals;
 - c. If Steps 1 and 2 are unsuccessful, Step 3 implements a Toxicity Identification Evaluation (TIE) and employment of all reasonable efforts using currently available TIE methodologies. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity;
 - d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;
 - e. Step 5 evaluates in-plant treatment options; and
 - f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of compliance with those requirements may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the Facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there are no longer toxicity (or six consecutive chronic toxicity test results are less than or equal to 1.0 TU_c or six consecutive acute toxicity test results are greater than 90% survival).

3. The Discharger shall initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the USEPA acute manual, chronic manual, EPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III), as guidance.
4. If a TRE/TIE is initiated prior to completion of the accelerated testing required in section V.A.2.d of this program, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer .
5. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance determination, if appropriate.
6. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will

be based, in part, on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

E. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia *because of* increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not other toxicants before the Executive Officer would allow for control of pH in the test.
 - a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.
 - b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.
 - c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.
 - d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.
2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

F. Reporting

The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month as required by this permit. Test results shall be reported as % survival for acute toxicity test results with the self monitoring reports (SMR) for the month in which the test is conducted. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the SMR for the period in which the Investigation occurred.

If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to section V.A.2.d., then those results also shall be submitted with the SMR for the period in which the investigation occurred.

1. The full report shall be submitted on or before the end of the month in which the SMR is submitted.
2. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit or chronic toxicity limit or trigger and (4) printout of the ToxCalc or CETIS (Comprehensive Environmental Toxicity Information System) program results.
3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test:
 - a. Sample date(s);
 - b. Test initiation date;
 - c. Test species;
 - d. End point values for each dilution (e.g., number of young, growth rate, percent survival);
 - e. LC₅₀ value(s) in percent effluent;
 - f. TU_a values $\left(TU_a = \frac{100}{LC_{50}} \right)$;
 - g. NOEC value(s) in percent effluent;
 - h. IC₁₅, IC₂₅, IC₄₀ and IC₅₀ values in percent effluent;
 - i. TU_c values $\left(TU_c = \frac{100}{NOEC} \right)$;
 - j. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable);
 - k. NOEC and LOEC (Lowest Observable Effect Concentration) values for reference toxicant test(s);
 - l. IC₂₅ value for reference toxicant test(s);
 - m. Any applicable charts; and
 - n. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).
4. The Discharger shall provide a compliance summary, which includes a summary table of toxicity data from all samples collected during that year.

5. The Discharger shall notify by telephone or electronically, this Regional Water Board of any toxicity exceedance of the limit or trigger within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Monitoring Location RSW-001

Receiving water sampling shall occur at the same time as the effluent monitoring. The Discharger shall monitor Compton Creek at Monitoring Location RSW-001 as follows:

Table E-3. Receiving Water Monitoring Requirements – RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	pH Units.	Grab	1/Year ¹	²
Temperature	°F	Grab	1/Year ¹	²
Salinity	mg/L	Grab	1/Year ¹	²
Hardness as CaCO ₃	mg/L	Grab	1/Year ¹	²
Priority Pollutants ³	µg/L	Grab	1/Year ¹	²

¹ Receiving water pH, temperature, salinity, and hardness shall be analyzed at the same time the samples are collected for the Priority Pollutants analysis.

² Pollutants shall be analyzed using the analytical methods described in Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, provided as Attachment H. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board.

³ Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.J of the Limitations and Discharge Requirements of this Order, and included as Attachment I. All metals shall be reported as total recoverable.

B. Monitoring Location RSW-002

The Discharger shall report the maximum daily flow in the Los Angeles River, at the Los Angeles County Department of Public Works' Willow Street Gage Station at Wardlow. For the purposes of this permit, this station is also known as RSW-002. The daily flow data at Wardlow station is posted on the Department of Public Works, Los Angeles County web site at <http://ladpw.org/wrd/report/0506/runoff/>. This information is necessary to determine the wet-weather and dry weather condition of the river, as defined in the Los Angeles River Metals TMDL. If the gauging station is not operational, an estimated maximum daily flow may be submitted.

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. This information shall be included in the monitoring report for the 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. SWPPP and BMPP Status and 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 90 days of the effective date of this permit.
- 2.** Annually the Discharger shall report the status of the implementation and the effectiveness of the SWPPP, BMPP, and SPCC Plan required under Special Provision VI.C.3 of this Order in the first quarterly report due on May 1 of the year. The SWPPP, BMPP, and SPCC Plan 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 in the SWPPP, BMPP, and SPCC Plan. All changes or revisions to the SWPPP, BMPP, and SPCC Plan should be submitted to the Regional Water Board within 30 days following the changes.

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 acute 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 hard copy SMRs. 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-4. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1 / Discharge Event	October 2, 2010	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1 / Year	October 2, 2010	January 1 through December 31	February 1

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.

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 RL, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified,” or DNQ. The

estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). 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 "Not Detected," or ND.

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

- 5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment H 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 reporting level (RL).
- 6. **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 "Detected, but Not Quantified" (DNQ) or "Not Detected" (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.
- 7. 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 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. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

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

C. Discharge Monitoring Reports (DMRs) – Not Applicable

D. Other Reports

1. Within 90 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.

The SWPPP, BMPP, and SPCC Plan 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 in the SWPPP, BMPP, and SPCC Plan. All changes or revisions to the SWPPP, BMPP, and SPCC Plan should be submitted to the Regional Water Board within 30 days of the revisions.

Annually, the Discharger shall report the status of the implementation and the effectiveness of the SWPPP, BMPP, and SPCC Plan in the first quarterly self monitoring report (SMR) due on May 1 of the following year.

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	4B191297001
Discharger	Hexion Specialty Chemicals
Name of Facility	Hexion Specialty Chemicals – Lynwood Facility
Facility Address	2801 Lynwood Road
	Lynwood, CA 90262
	Los Angeles County
Facility Contact, Title and Phone	John Dang, EHS Manager, (310) 884 – 5553
Authorized Person to Sign and Submit Reports	Same as above
Mailing Address	2801 Lynwood Road Lynwood, CA 90262
Billing Address	Same as above
Type of Facility	Industrial, SIC Code 2821 (Resins Manufacturing)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	B
Pretreatment Program	N/A
Reclamation Requirements	N/A
Facility Permitted Flow	0.34 million gallons per day (MGD)
Facility Design Flow	0.34 million gallons per day (MGD)
Watershed	Los Angeles River Watershed
Receiving Water	Compton Creek
Receiving Water Type	Inland Surface Water

A. Hexion Specialty Chemicals (hereinafter Discharger) is the owner and operator of the Lynwood Facility (hereinafter Facility), a polyster and alkyd resins manufacturing facility.

Resolution Specialty Materials LLC, the former discharger, merged with and into Borden Chemical, Inc. The name of the merged company changed to Hexion Specialty Chemicals, Inc., on or about May 31, 2005.

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 treated storm water runoff from undiked areas (i.e., areas not within secondary containment) of the Facility to the Compton Creek, a tributary to the Los Angeles River, a water of the United States. Discharges from the Facility are currently regulated by Order No. R4-2005-0029, which was adopted on May 5, 2005 and expired on April 10, 2010. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements and an NPDES permit are adopted pursuant to this Order.
- C.** The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on October 7, 2009. Site visits were conducted on January 25 and July 7, 2010, to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

The Discharger operates a polyester and alkyd (i.e., oil modified polyester) resins manufacturing facility for paint production at 2801 Lynwood Road, Lynwood, California. The Facility manufactures a variety of synthetic alkyd and polyester resin products, and maintains above ground storage tanks for raw materials and finished goods, resins loading operations, and warehousing for 55-gallon drum finished products. Bulk materials and resin products are stored in aboveground tanks at the Facility and other materials and finished products are stored in drums, bags, and various other containers. Ancillary operations include quality assurance and R&D laboratories, administration, maintenance and shipping and receiving. The site consists of two parcels of land; a 4.5-acre parcel that is owned and a 1.5-acre parcel that is leased. The site is generally flat and slopes gently from the North to the South; it is covered by 4 to 6 inches of concrete with localized asphalt aprons.

A. Description of Wastewater and Biosolids Treatment or Controls

The permit renewal application describes the activities that take place at the Facility. Alkyd (i.e., oil-modified polyester), saturated polyester, and unsaturated resins are manufactured in batches at the plant using reactor vessels and mix tanks. The majority of the feedstocks are liquid raw materials that are pumped from aboveground storage tanks to the kettles and mix tanks via a closed piping system. Additional feedstocks are added manually, such as solids (i.e., granular, powders) from bags and super sacks via manways on top of the kettles. The resin is then heated to react in the kettles. After completion of the reaction step, the resin is transferred from the kettles to the mix tanks for the addition of solvents or monomers to thin the resin. The primary by-product of the reaction is water vapor containing soluble organics that are condensed and flow to an isolated tank. The vapors are directed towards the onsite thermal oxidizer. The finished resin is then pumped through one of three different types of filtration systems into finished goods aboveground storage tanks, 55-gallon drums, 350-gallon IBC totes, or directly into tanker trucks.

Raw materials used onsite included but are not limited to monomers (styrene, alpha methyl styrene), hydrocarbons and natural oils (dicyclopentadiene, tall oil fatty acids, linseed oil, refined soya oils, safflower oil, sunflower oil), organic acids and anhydrides (adipic acid, maleic anhydride, isophthalic acid, terephthalic acid, and phthalic anhydride), glycols or polyols (propylene glycol, diethylene glycol, ethylene glycols, glycol ether PM), solvents (toluene, xylene, mineral spirits), cyanates (toluene diisocyanate), and various small quantities of additives or modifiers (antioxidants, alcohols, fumed silica).

Hexion Specialty Chemicals discharges up to 0.34 million gallons per day (MGD) of storm water runoff from undiked areas (i.e., areas not within secondary containment). The Facility consists of both diked zones and undiked zones. Storm water discharge from the diked areas is treated by the Facility's pretreatment system and discharged to the sanitary sewer. This discharge is covered under an industrial wastewater sewer permit.

The diked zones provide secondary containment for bulk liquid raw material storage and finished goods storage. Storm water within the diked areas is pumped out via a series of air operated diaphragm pumps to the facility pretreatment system, which consists of a series of bag filters, storage tanks, and a series of carbon absorption vessels. Water is released through a permitted discharge point to the Los Angeles County Sanitary District sewer system. All other processes water, i.e. cooling tower water, boiler blow down water, and treated underground water are discharge through sanitary sewer system. Storm water from diked areas is prohibited from exiting the property through Discharge Point No. 001 and entering the storm drain.

Undiked areas include roads, buildings, and services areas. Several tanks, located under a roof, as well as tank wagons are also kept in the undiked area. The storm water from these areas is diverted by pitched pavement and through pavement depressions to the front of the Facility, adjacent to Lynwood Road. The majority of storm water is diverted to the southeast corner of the property to a storm water collection box (East Gate collection sump). A portion of storm water falling outside the containment dikes is collected in a sump located at the West Gate side of the office building. Normal configuration is for this water to be pumped to the East Gate collection sump. The storm water is then diverted through the storm water treatment system consisting of four sand filters, a backwash sand filter storage tank, an additive injection system, and a water storage tank (300,000 gallons). When the tank is full, the treated storm water will be discharged from the pipeline connected to the top of the tank to the storm drain through Discharge Point No. 001. The discharge point at the West Gate (formerly Discharge Serial No. 002) was eliminated in January 2007 because all discharge water is transferred to the East Gate collection sump.

During non-storm events, spilled wastewaters in the Discharge Point No. 001 collection area are directed via a series of collection trenches and gravity flow to the East Gate collection sump. The flow from this collection sump is pumped to the on-site wastewater pretreatment system to be discharged to the sanitary sewer. During rain events, a "rainwater switch" system (the rainwater switch system consists of a rain

water collection disc, connecting tubing and an electronic switch that connects to the electrical outlet of the sump pump; during the rain events, the rain water that is collected in the rainwater switch system will shut down the sump pump to prevent the rain water from entering into the sanitary sewer system) will indicate a storm event is occurring, and the system allows the storm water to discharge through Discharge Point No. 001. Prior to discharge, storm water is treated by the storm water treatment system. Discharge Point No. 001 is located at a storm drain on Lynwood Road.

Previously, samples were collected manually by filling sample containers directly from the surface runoff. The Discharger has installed a sample collection port at the discharge pipe from the 300,000-gallon water storage tank to the storm drain on Lynwood Road.

The Discharger transfers process wastewater to an offsite, licensed Treatment Storage Disposal Facility for treatment.

B. Discharge Points and Receiving Waters

All effluent discharged from the Facility is directed to Compton Creek via a storm drain, through Discharge Point No. 001. (Latitude 33°55'34" N, Longitude 118°13'13" W). Compton Creek is tributary to Los Angeles River, a water of the United States, and is part of the Los Angeles River Watershed.

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

Effluent limitations contained in the existing Order for discharges from Discharge Point No. 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the existing Order are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data - Discharge Point Nos. 001 and 002

Parameter	Units	Effluent Limitation			Monitoring Data
		Instantaneous Minimum	Instantaneous Maximum	Maximum Daily	Range of Reported Concentrations
<i>Discharge Point No. 001 (East Gate)</i>					
pH	Standard Units	6.5	8.5	---	6.55 – 8.8
Temperature	°F	---	86	---	46 – 66
Total Suspended Solids (TSS)	mg/L	---	---	75	5 – 115
Oil and Grease	mg/L	---	---	15	ND – 13.4
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	---	---	30	ND – 86.8
Phenols	mg/L	---	---	1.0	All are ND
Hexavalent Chromium	µg/L	---	---	32 (I) / 16 (F) ¹	All are ND
Copper	µg/L	---	---	120 (I) / 14 (F) ¹	ND – 69.6

Parameter	Units	Effluent Limitation			Monitoring Data
		Instantaneous Minimum	Instantaneous Maximum	Maximum Daily	Range of Reported Concentrations
Lead	µg/L	---	---	66 (I) / 5 (F) ¹	ND – 41.9
Nickel	µg/L	---	---	86	ND – 11
Zinc	µg/L	---	---	5,000 (I) / 120 (F) ²	ND – 1,750
1,2-Dichloroethane	µg/L	---	---	1.8 (I) / 1 (F) ¹	All are ND
Benzene	µg/L	---	---	2	All are ND
Bis(2-Ethylhexyl)Phthalate	µg/L	---	---	66 (I) / 12 (F) ¹	ND – 31.1
Tetrachloroethylene	µg/L	---	---	10	All are ND
Toluene	µg/L	---	---	30	ND – 3.68
Acute Toxicity	% Survival	3			95 ⁴
Discharge Point No. 002 (West Gate)⁵					
pH	Standard Units	6.5	8.5	---	6.4 – 8.65
Temperature	°F	---	86	---	55 – 66
TSS	mg/L	---	---	75	2 – 171
Oil and Grease	mg/L	---	---	15	ND – 12.3
BOD ₅	mg/L	---	---	30	11.1 – 89.9
Phenols	mg/L	---	---	1.0	ND – 0.0828
Hexavalent Chromium	µg/L	---	---	24 (I) / 16 (F) ¹	ND – 20
Copper	µg/L	---	---	100 (I) / 14 (F) ¹	13.8 – 120
Lead	µg/L	---	---	61 (I) / 5 (F) ¹	ND – 57.9
Nickel	µg/L	---	---	86	ND – 25.1
Zinc	µg/L	---	---	5,000 (I) / 120 (F) ²	630 – 3,730
Bis(2-Ethylhexyl) Phthalate	µg/L	---	---	48 (I) / 12 (F) ¹	ND – 66.1
Ethylbenzene	µg/L	---	---	1,404	All are ND
Tetrachloroethylene	µg/L	---	---	10 ⁶	All are ND
Toluene	µg/L	---	---	580 (I) / 30 (F) ¹	All are ND
Acute Toxicity	% Survival	3			0 – 70 ⁵

¹ Interim effluent limitations (I) were effective for the period from the effective date of Order No. R4-2005-0029 until December 31, 2007. The final effluent limitation (F) became effective January 1, 2008.

² Interim effluent limitations (I) were effective for the period from the effective date of Order No. R4-2005-0029 until December 31, 2006. The final effluent limitation (F) became effective January 1, 2007.

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 tests shall be at least 90%, and (ii) no single test producing less than 70% survival.

⁴ This value represents the lowest reported survival percentage after the implementation of treatment system including sand filtration and pH adjustment in January 2007.

⁵ Discharge Point No. 002 (for discharges from the West Gate) was discontinued in January 2007. The data presented in the summary for Discharge Point No. 002 represent data reported for the period from September 2005 through November 2006.

⁶ This limitation became effective on January 1, 2008.

D. Compliance Summary

Data submitted to the Regional Water Board indicate that the Discharger has exceeded existing permit limitations as outlined in the table F-3 below. As stated previously, in January 2007, the Discharger eliminated Discharge Point No. 002 (West Gate) and has diverted all effluent to the East Gate and then discharged through Discharge Point No. 001 to the Compton Creek via a storm drain.

Table F-3. Summary of Compliance History

Date	Monitoring Location	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
Discharge Point No. 001 (East Gate)						
1/28/2005	001 (East)	Daily Maximum	TSS	93	75	mg/L
2/17/2005	001 (East)	Daily Maximum	TSS	170	75	mg/L
2/27/2006	001 (East)	Daily Maximum	TSS	115	75	mg/L
2/27/2006	001 (East)	Instantaneous	pH	8.8	6.5 – 8.5	pH Units
2/27/2006	001 (East)	Daily Maximum	BOD	87	30	mg/L
3/3/2006	001 (East)	Daily Maximum	BOD	31	30	mg/L
3/10/2006	001 (East)	Daily Maximum	BOD	54	30	mg/L
3/28/2006	001 (East)	Daily Maximum	BOD	42	30	mg/L
4/4/2006	001 (East)	Daily Maximum	BOD	56	30	mg/L
5/22/2006	001 (East)	Daily Maximum	BOD	38	30	mg/L
2/11/2007	001 (East)	Daily Maximum	Zinc	172	120	µg/L
2/19/2007	001 (East)	Daily Maximum	Zinc	235	120	µg/L
2/22/2007	001 (East)	Daily Maximum	Zinc	249	120	µg/L
2/27/2007	001 (East)	Daily Maximum	Zinc	268	120	µg/L
4/15/2007	001 (East)	Daily Maximum	Zinc	429	120	µg/L
4/20/2007	001 (East)	Daily Maximum	Zinc	320	120	µg/L
12/7/2007	001 (East)	Daily Maximum	Zinc	174	120	µg/L
12/18/2007	001 (East)	Daily Maximum	Zinc	142	120	µg/L
1/22/2008	001 (East)	Daily Maximum	Copper	17	14	µg/L
2/20/2008	001 (East)	Daily Maximum	Zinc	130	120	µg/L
Discharge Point No. 002 (West Gate)						
1/28/2005	002 (West)	Daily Maximum	TSS	99	75	mg/L
2/17/2005	002 (West)	Daily Maximum	TSS	320	75	mg/L
3/18/2005	002 (West)	Daily Maximum	TSS	110	75	mg/L
3/22/2005	002 (West)	Daily Maximum	TSS	96	75	mg/L
9/20/2005	002 (West)	Instantaneous	pH	8.65	6.5 – 8.5	Standard Units
9/20/2005	002 (West)	Daily Maximum	TSS	171	75	mg/L
9/20/2005	002 (West)	Daily Maximum	BOD	42	30	mg/L
9/20/2005	002 (West)	Daily Maximum	Copper	120	100	µg/L
10/17/2005	002 (West)	Daily Maximum	Bis(2-Ethylhexyl) Phthalate	66	48	µg/L
10/17/2005	002 (West)	Daily Maximum	TSS	138	75	mg/L
2/27/2006	002 (West)	Daily Maximum	TSS	140	75	mg/L
2/27/2006	002 (West)	Daily Maximum	BOD	75	30	mg/L
3/10/2006	002 (West)	Daily Maximum	BOD	55	30	mg/L

Date	Monitoring Location	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
3/28/2006	002 (West)	Daily Maximum	BOD	42	30	mg/L
4/4/2006	002 (West)	Daily Maximum	BOD	54	30	mg/L
5/22/2006	002 (West)	Daily Maximum	BOD	56	30	mg/L
5/22/2006	002 (West)	Daily Maximum	TSS	114	75	mg/L
11/27/2006	002 (West)	Daily Maximum	BOD	90	30	mg/L
11/27/2006	002 (West)	Instantaneous	pH	6.4	6.5 – 8.5	pH Units

For the violations listed in the above table, an enforcement letter (Settlement Offer No R4-2008-0089-M) was issued to the Discharger on October 15, 2008. The Discharger accepted the Settlement Offer on April 8, 2009 and subsequently submitted the penalty payment. Monitoring data after October 15, 2008 are being reviewed and any violations will be evaluated for appropriate enforcement actions.

E. Planned Changes

The Discharger completed a new storm water treatment system in January 2007, to eliminate storm water discharges from Discharge Point No. 002 (West Gate), and now treats all storm water from undiked areas of the Facility before discharging the water into the storm drain catch basin on Lynwood Road (located near the East Gate) through Discharge Point No. 001. There has been no indication of planned changes at the Facility.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed 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 an 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 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 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. Beneficial uses applicable to the Compton Creek are as follows:

Table F-4. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Uses
001	Compton Creek (Hydrologic Unit No. 405.15)	<p><u>Existing:</u> Ground Water Recharge (GWR); Water Contact Recreation (REC-1)¹; Non-Contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Wildlife Habitat (WILD); and Wetland Habitat (WET).</p> <p><u>Potential:</u> Municipal and Domestic Supply (MUN)*</p>

¹ Access prohibited by Los Angeles DPW.

* Asterixed MUN designation under SB 88-63 and RB-03 may be considered for exceptions at a later date.

Requirements of this Order implement the Basin Plan.

Title 22 of the California Code of Regulations. The California Department of Public Health established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22, California Code of Regulations (Title 22). The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect the groundwater recharge beneficial use when that receiving groundwater is designated as MUN. Also, the Basin Plan specifies that “Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.” Therefore, the secondary MCL’s, are also incorporated into this permit to protect groundwater quality.

- 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. This plan contains temperature objectives for surface waters. Requirements of this Order implement 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. The white paper provided the basis to conclude this maximum effluent temperature limitation of 86°F is appropriate for protection of aquatic life and it is included in this Order.

- 3. Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Table 3-1 through Table 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The amendment reflects the revised water quality criteria developed by USEPA in the “1999 Update of Ambient Water Quality Criteria for Ammonia,” December 1999. The 1999 Update contains USEPA’s most recent freshwater aquatic life criteria for ammonia and supersedes all previous freshwater aquatic life criteria for ammonia. The ammonia Basin Plan amendment was approved by the State Water Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with USEPA’s 1999 ammonia criteria update.
- 4. 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.
- 5. 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.
- 6. 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 C.F.R. § 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.

- 7. 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.
- 8. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations¹ section 122.44(l) prohibit backsliding in NPDES permits. 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.

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 2006 303(d) list of impaired water bodies on June 28, 2007. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2006 303(d) list and have been scheduled for TMDL development. The Facility discharges into Compton Creek. The 2006 State Water Board's California 303(d) List classifies Compton Creek as impaired. The pollutants of concern include coliform bacteria and trash. The following were developed and adopted TMDLs for the Los Angeles River, to which Compton Creek is a tributary:

Trash TMDL: The Los Angeles River Trash TMDL was adopted by the Regional Water Board on September 19, 2001. The TMDL established a numeric target of zero trash in the Los Angeles River. The TMDL was to be implemented via storm water permits in a phased reduction for a period of 10 years. The Los Angeles River Trash TMDL was approved by the State Water Board on February 19, 2002, and Office of Administrative Law (OAL) on July 16, 2002. The USEPA approved the trash TMDL on August 1, 2002, and it became effective on August 28, 2002. There were a number of challenges to the Los Angeles River Trash TMDL. The consideration of the challenges resulted in a requirement that the TMDL be set aside and not implemented until the CEQA requirements had been satisfied. On June 8, 2006, the Regional Water Board adopted

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

a resolution to set aside the adopted TMDL. On July 17, 2006, the State Water Board adopted Resolution No. 2006-0051, setting the TMDL aside. An amendment to the Los Angeles River Trash TMDL (Resolution No. 2007-012) was adopted by the Regional Water Board on August 9, 2007. The State Water Board approved the TMDL on April 15, 2008. OAL approved the trash TMDL on July 1, 2008. The USEPA approved the trash TMDL on July 24, 2008, and it became effective on September 23, 2008. This TMDL will be implemented through Municipal Separate Storm Sewer Systems (MS4) NPDES Permit Program. However, this permit implements requirements for a storm water pollution prevention plan which is expected to minimize/prevent the discharge of trash from the Facility to the Los Angeles River watershed. The Order is consistent with the intent of Resolution No. 2007-012.

Nutrient TMDL for Los Angeles River: The Regional Water Board adopted Resolution No. 03-009 on July 10, 2003, that amended the Basin Plan to incorporate a TMDL for Nutrients (Nitrogen Compounds and related effects) in the Los Angeles River. The TMDL was approved by the State Water Board and Office of Administrative Law on November 19, 2003, and February 27, 2004, respectively. The Nutrients TMDL was approved by USEPA on March 18, 2004, and it became effective on March 23, 2004. Subsequently, Resolution No. 03-016 which revised the interim effluent limitations for ammonia was adopted by the Regional Water Board on December 4, 2003. The State Water Board approved the TMDL with Resolution 2004-0014 on March 24, 2004. OAL approved the TMDL on September 27, 2004, and it became effective on the same date. Resolution Nos. 03-009 and 03-016 establish WLAs for the Los Angeles River, to which Compton Creek is a tributary, for total ammonia and nitrate-nitrogen. The TMDL establishes WLAs for total ammonia (nitrogen), nitrate-nitrogen, nitrite-nitrogen, and nitrate-nitrogen plus nitrite-nitrogen. Effluent limitations based on these WLAs have been established in this Order.

Metals TMDL for Los Angeles River: The Regional Water Board adopted Resolution No. 2005-006 on June 2, 2005, that amended the Basin Plan to incorporate a TMDL for metals in the Los Angeles River. The State Water Board approved the metals TMDL on October 20, 2005, and OAL approved the TMDL on December 9, 2005. The USEPA approved the metals TMDL on December 22, 2005, and it became effective on January 11, 2006. The metals TMDL establishes numeric water quality targets that are based on objectives established by USEPA in the CTR. An amendment to the metals TMDL (Resolution No. R2007-014) was adopted by the Regional Water Board on September 6, 2007. The State Water Board and OAL approved the metals TMDL, on June 17, 2008, and October 17, 2008, respectively. USEPA approved the metals TMDL on October 14, 2008, and it became effective on October 29, 2008. Resolution No. R2007-014 establishes WLAs in Compton Creek for cadmium, copper, lead, and zinc. This permit implements the conditions of Resolution No. R2007-014.

E. Other Plans, Policies 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 (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

The Discharger operates a polyester and alkyd resins manufacturing facility for paint production. The storm water discharge from the Hexion facility is generated in the undiked areas of the Facility, and may come into contact with roads, buildings, and service areas. Suspended solids and oil and grease are typical pollutants found in storm water discharges from industrial facilities. Phenols may be present in storm water runoff from facilities that produce synthetic materials. In addition, the list of pollutants of concern is based on constituents that are regulated in the Basin Plan, CTR or TMDLs and were detected in the effluent. In this Order, effluent limitations for pH, temperature, TSS, BOD, phenols and oil and grease are carried over from Order No. R4-2005-0029 and are based on water quality objectives contained in the Basin Plan as well as the typical limitations prescribed in similar permits. Effluent limitations for metals and nitrogen compounds are based on WLAs in related TMDLs. In Order No. R4-2005-0029, only maximum daily effluent limitations were prescribed because the discharge only contains storm water and the discharge is intermittent in nature. Although both average monthly and daily maximum effluent limitations may be established based on metals and nitrogen compounds TMDLs for the Los Angeles River, this Order also prescribes only maximum daily effluent limitations for pollutants being regulated by TMDLs. For nitrate-nitrogen, nitrite-nitrogen and nitrate-nitrogen plus nitrite-nitrogen, only average monthly effluent limitations are prescribed because daily maximum effluent limitations are not available in the nitrogen compounds TMDL. This approach is consistent with other similar permits adopted in the Los Angeles Region.

A variety of raw materials are used in the manufacturing process including monomers (styrene, alpha methyl styrene), hydrocarbons and natural oils (dicyclopentadiene, tall oil fatty acids, linseed oil, refined soya oils, safflower oil, sunflower oil), organic acids and anhydrides (adipic acid, maleic anhydride, isophthalic acid, terephthalic acid, and phthalic anhydride), glycols or polyols (propylene glycol, diethylene glycol, ethylene glycols, glycol ether PM), solvents (toluene, xylene, mineral spirits), cyanates (toluene diisocyanate), and various small quantities of additives or modifiers (antioxidants, alcohols, fumed silica). Because these materials are potentially used on site and could come into contact with storm water, these pollutants are considered pollutants of concern. This Order does not establish effluent limitations for these pollutants. However, these materials may contribute to toxicity in the receiving water; and because toxicity is an indicator of the combined effect of pollutants contained in the discharge, an effluent limitation for acute toxicity is prescribed in the Order. In addition, monitoring requirements for total organic carbon and chemical oxygen demand are included in the Order because they are often used as indicators of pollutants related to chemical manufacturing.

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 limitation on a case-by-case basis limitation 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.

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 are consistent with the requirements set for other discharges regulated by NPDES permit to the Compton Creek.

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 best professional judgment (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

This Order includes technology-based effluent limitations based on BPJ in accordance with Section 125.3. Effluent limitations for BOD₅, TSS, oil and grease, and phenols have been carried over from the existing Order (R4-2005-0029) for Discharge Point 001. The limitations for these pollutants are consistent with technology-based limitations included in other Orders within the State for similar types of discharges.

This Order will require the Discharger to update and continue to implement, consistent with the existing Order requirements, a Storm Water Pollutant Prevention Plan (SWPPP). The Discharger updated their SWPPP (dated September 24, 2009); it reflects current Facility operations. During a site visit conducted January 25, 2010, raw materials were observed stored in 55-gallon drums (approximately 20 drums) adjacent to Discharge point No. 001 (Exterior Drum Storage Area). This location was not equipped with secondary containment and the Discharger was not utilizing any mobile containment for the 55-gallon drums. Spills during a non-storm event that drain toward Discharge Point No. 001 are likely to be captured and directed to the pretreatment system; however, spills during a storm event would likely be commingled with storm water and discharged. It appeared that spills from the Exterior Drum Storage Area may have the potential for draining toward the railroad tracks that run through the Facility (used for rail car unloading). Storm water discharges from the Facility via the railroad tracks that run through the Facility. In addition, during the January 25, 2010 site visit, contaminated steam condensate (steam was being used to keep the resin soft so that it could be removed from containers) was observed in the drainage area for Discharge Point No. 002 adjacent to a covered garage used for vehicle parking and spare parts storage. At the time of the site visit, the condensate was being collected via gravity into a collection trench. However, during a storm event the collection trench would be overwhelmed and contaminated steam condensate would commingle with storm water. The contaminated storm water has the potential to enter the West Gate collection sump and then redirects to Discharge Point No. 001.

The Discharger shall review the SWPPP and update it to outline site-specific management processes for minimizing storm water runoff contamination from the aforementioned areas (e.g., Exterior Drum Storage Area) and for preventing contaminated storm water runoff from being discharged directly into the storm drain or from draining towards the railroad tracks that run through the Facility. In addition,

the Discharger shall consider how to manage contaminated steam condensate to ensure it is not discharged without receiving treatment. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water in the undiked areas, and that all storm water within the diked areas is contained within the diked areas at all times, treated by the pretreatment system, and discharged to the sanitary sewer system. Because storm water discharges do occur at the Hexion facility and make up the entire discharge, this Order will require that the Discharger update and continue to implement their SWPPP (Attachment G).

Due to the lack of national ELGs for storm water runoff from polyester and alkyd resins manufacturing facilities and the absence of data to apply BPJ to develop numeric effluent limitations, and pursuant to 40 CFR section 122.44(k), the Regional Water Board will require the Discharger to develop and implement Best Management Practices (BMPs), which shall be included in the SWPPP. The purpose of the BMPs is to establish site-specific procedures that will ensure proper operation and maintenance of equipment and storage areas, to ensure that unauthorized non-storm water discharges (i.e., process water, spills, diked storm water) do not occur at the Hexion facility.

This Order will require the Discharger to update and continue to implement their Spill Prevention Control and Countermeasures (SPCC) Plan. The development and implementation of a SPCC Plan shall ensure that operational methods are in place to minimize the potential of on-site spills and define specific procedures to be implemented in the event of a spill.

A copy of the SWPPP, BMPs, and SPCC Plan shall be submitted to the Regional Water Board within 90 days of the effective date of this Order. To ensure the plans remain effective, the plans shall be reviewed at least annually, at the same time every year, and revised to reflect current operations and conditions. Any revisions shall be submitted to the Regional Water Board within 30 days of the revisions.

The combination of the SWPPP, BMPs, SPCC plan, and existing Order limitations based on past performance and reflecting BPJ will serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

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

Parameter	Units	Maximum Daily Effluent Limitations
BOD ₅	mg/L	30
TSS	mg/L	75
Oil & Grease	mg/L	15
Phenols	mg/L	1.0

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, water quality-based effluent limitations (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, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

The specific procedures for determining reasonable potential and, if necessary, for calculating WQBELs are contained in the Technical Support Document (TSD) for storm water discharges and in the SIP for non-storm water discharges. However, the TSD states that "an analogous approach developed by a regulatory authority can be used to determine the reasonable potential" (for storm water discharges). The Regional Water Board has determined that the procedures for determining reasonable potential and calculating WQBELs contained in the SIP for non-storm water discharges may also be used to evaluate reasonable potential and calculate WQBELs for storm water discharges as well. Hence, in this Order, the Regional Water Board has used the SIP methodology to evaluate reasonable potential for storm water discharges through Discharge Point No. 001.

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 Compton Creek are 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 Compton Creek. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, 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 CTR criteria for freshwater or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Compton Creek, a water of the United States in the vicinity of the discharge.

Some water quality criteria are hardness dependent. The Discharger provided only one hardness result for the receiving water (Compton Creek) during the last permit term. Therefore, reasonable potential for Discharge Point No. 001 was evaluated considering the available hardness data (see Table F-6) reported by Los Angeles County Department of Public Works at the Compton Creek monitoring station (LAR 1-12) and the Discharger's monitoring result. In order to ensure adequate protection of the receiving water, the average observed hardness value of 186.5 mg/L as CaCO₃ was used for the evaluation of reasonable potential.

Table F-6. Hardness Values of Receiving Waters at Compton Creek Station

Sampling Date	Station	Hardness (mg/L as CaCO ₃)
1/18/2005	Compton Creek (LAR 1-12)	124
2/15/2005	Compton Creek (LAR 1-12)	73.6
3/16/2005	Compton Creek (LAR 1-12)	135
4/20/2005	Compton Creek (LAR 1-12)	197
5/18/2005	Compton Creek (LAR 1-12)	241
6/8/2005	Compton Creek (LAR 1-12)	224
7/13/2005	Compton Creek (LAR 1-12)	191
8/10/2005	Compton Creek (LAR 1-12)	147
9/14/2005	Compton Creek (LAR 1-12)	244
10/12/2005	Compton Creek (LAR 1-12)	237
11/9/2005	Compton Creek (LAR 1-12)	155
12/15/2005	Compton Creek (LAR 1-12)	175
1/18/2006	Compton Creek (LAR 1-12)	128
2/15/2006	Compton Creek (LAR 1-12)	198
3/22/2006	Compton Creek (LAR 1-12)	69.4
4/26/2006	Compton Creek (LAR 1-12)	139
5/18/2006	Compton Creek (LAR 1-12)	232
6/14/2006	Compton Creek (LAR 1-12)	183
7/11/2006	Compton Creek (LAR 1-12)	209
8/16/2006	Compton Creek (LAR 1-12)	191
9/13/2006	Compton Creek (LAR 1-12)	243
10/11/2006	Compton Creek (LAR 1-12)	241
11/15/2006	Compton Creek (LAR 1-12)	224
12/13/2006	Compton Creek (LAR 1-12)	106
1/17/2007	Compton Creek (LAR 1-12)	231

Sampling Date	Station	Hardness (mg/L as CaCO ₃)
2/14/2007	Compton Creek (LAR 1-12)	137
3/14/2007	Compton Creek (LAR 1-12)	271
4/11/2007	Compton Creek (LAR 1-12)	239
5/16/2007	Compton Creek (LAR 1-12)	214
6/13/2007	Compton Creek (LAR 1-12)	209
7/11/2007	Compton Creek (LAR 1-12)	213
8/15/2007	Compton Creek (LAR 1-12)	229
9/12/2007	Compton Creek (LAR 1-12)	249
10/17/2007	Compton Creek (LAR 1-12)	138
11/14/2007	Compton Creek (LAR 1-12)	259
12/19/2007	Compton Creek (LAR 1-12)	32.4
1/23/2008	Compton Creek (LAR 1-12)	60.5
2/6/2008	Compton Creek (LAR 1-12)	74.2
4/30/2008	Compton Creek (LAR 1-12)	234
5/14/2008	Compton Creek (LAR 1-12)	258
6/18/2008	Compton Creek (LAR 1-12)	247
7/16/2008	Compton Creek (LAR 1-12)	194
8/13/2008	Compton Creek (LAR 1-12)	236
10/8/2008	Compton Creek (LAR 1-12)	250
11/13/2008	Compton Creek (LAR 1-12)	171
12/10/2008	Compton Creek (LAR 1-12)	236
12/7/1009	Compton Creek (Discharger)	78
	Average =	186.5

Table F-7 summarizes the applicable water quality criteria/objective for priority pollutants reported in detectable concentrations in the effluent or receiving water. These criteria were used in conducting the RPA for this Order.

Table F-7. Applicable Water Quality Criteria -- Discharge Point No. 001

CTR No.	Constituent	Selected (Lowest) Criteria	CTR/NTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
5a	Chromium (VI)	11.43	16.29	11.43	N/A		Narrative	
6	Copper*	15.9	25.2	15.9			---	
7	Lead*	7.0	181	7.0			Narrative	
9	Nickel*	88	795	88			4,600	
13	Zinc*	203	203	203			---	
20	Bromoform	360.0	---	---			360.0	
23	Chlorodibromo-methane	34.00	---	---			34.00	
26	Chloroform	No Criteria	---	---			---	

27	Dichlorobromo- methane	46.00	---	---	46.00
33	Ethylbenzene	29,000	---	---	29,000
39	Toluene	200,000	---	---	200,000
68	Bis(2-Ethylhexyl) Phthalate	5.9	---	---	5.9

"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.

* Based on a hardness value of 186.5 mg/L as CaCO₃.

On June 2, 2005, the Regional Water Board adopted Resolution No. 2005-006, an amendment to the Basin Plan, which establishes metals TMDLs for the Los Angeles River and tributaries for cadmium, copper, lead, selenium, and zinc. An amendment to the metals TMDL (Resolution No. 2007-014) was adopted by the Regional Water Board on September 6, 2007, and became effective on October 29, 2008. The amendment establishes concentration-based dry-weather waste load allocations (WLAs) in Compton Creek for copper and lead. The amendment also establishes concentration-based wet-weather WLAs for all reaches of the Los Angeles River and its tributaries for cadmium, copper, lead, and zinc. The numeric target portion of the Metals TMDL specifies when the wet-weather and dry-weather targets (based on numeric water quality criteria established by CTR) are applicable. Wet-weather targets are applicable when the flow in the Los Angeles River is 500 cubic feet per second (cfs) or greater. Dry-weather targets are applicable when flow in the Los Angeles River is less than 500 cfs. The amendment states that permit writers may translate applicable WLAs into effluent limitations for the major, minor, and general NPDES permits by applying the effluent limitation procedures in Section 1.4 of the SIP or other applicable engineering practices authorized under federal regulations. This permit includes dry-weather effluent limitations for copper and lead, and wet-weather effluent limitations for cadmium, copper, lead, and zinc based on metals TMDL for the Los Angeles River and applying the procedures in Section 1.4 of the SIP.

Table F-8 summarizes the applicable dry-weather and wet-weather WLAs for cadmium, copper, lead, and zinc contained in the Metals TMDL.

Table F-8. Applicable Waste Load Allocations

Parameter	Units	WLA	
		Dry-weather	Wet-weather
Cadmium, Total Recoverable	µg/L	Not Applicable	3.1
Copper, Total Recoverable	µg/L	19	17
Lead, Total Recoverable	µg/L	8.9	62
Zinc, Total Recoverable	µg/L	Not Applicable	159

Resolution Nos. 2-012 and 07-012 establish WLAs for trash to the Los Angeles River and applicable tributaries. The implementation of the Trash TMDL is specific to Phase II storm water permittees and cities within the Los Angeles River watershed. No specific WLAs are specified for individual NPDES permittees. However, the implementation of the SWPPP discussed in section IV.B.2 of this Fact Sheet is expected to prevent/minimize the discharge of trash to the Los Angeles

River watershed from the Facility and is consistent with the intent of the Trash TMDL.

As stated previously, on July 10, 2003, the Regional Water Board adopted Resolution No. 03-009, an amendment to the Basin Plan, which establishes TMDLs for the Los Angeles River for nitrogen compounds (including ammonia-nitrogen, nitrate-nitrogen, nitrite-nitrogen, and nitrate-nitrogen plus nitrite-nitrogen) and related effects. The amendment establishes concentration-based WLAs for minor point sources. The implementation portion of the TMDL states that WLAs shall be applied to minor point source dischargers on the effective date of the TMDL. The following WLAs are applicable to this discharge:

- a. Total Ammonia (as nitrogen) – 2.3 mg/L (30-day average)
10.1 mg/L (One-hour average)
- b. Nitrate-nitrogen (NO₃-N) – 8 mg/L (30-day average)
- c. Nitrite-nitrogen (NO₂-N) – 1 mg/L (30-day average)
- d. Nitrate-nitrogen plus nitrite-nitrogen (NO₃-N + NO₂-N) – 8 mg/L (30-day average)

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 \geq 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.

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. Multiple (i.e., not less than 16) sets of discharge data are available for Discharge Point No. 001 (Monitoring Location EFF-001) from April 2005 to December 2009. Five sets of receiving water data from 2006 through 2009 were also available. However, since the Discharger eliminated the Discharge Point No. 002 at the West Gate area by diverting the collected storm water to the East Gate collection sump and implemented sand filtration treatment for storm water in January 2007, effluent data collected before January 2007 were not representative. As a result, only 24 sets of effluent data (January 2007 to December 2009) were used in the RPA. Based on the RPA, the only pollutant that demonstrates reasonable potential is zinc (dry-weather only; wet-weather is based on TMDL). Refer to Attachment J for a summary of the RPA and associated effluent limitation calculations.

Order No. R4-2005-0029 established effluent limitations for hexavalent chromium, nickel, 1,2-dichloroethane, benzene, bis(2-ethylhexyl) phthalate, tetrachloroethylene and toluene based on the requirements of the CTR and SIP. The most recent RPA did not find reasonable potential for these pollutants. Based on the newly available data and RPA, and consistent with 40 CFR 122.44(l)(2)(i)(B)(1), effluent limitations for these pollutants have been removed. Monitoring requirements for these pollutants are included as part of the priority pollutant monitoring to ensure that concentrations of these parameters remain below any applicable water quality criteria.

Table F-9. Summary Reasonable Potential Analysis – Discharge Point No. 001

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
5b	Chromium (VI)	11.43	ND ¹	ND	No	MEC & B are ND
9	Nickel, Total Recoverable	88			No	MEC < C & B is ND
13	Zinc, Total Recoverable	203			Yes²	MEC > C
19	Benzene	71			No	MEC & B are ND

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
20	Bromoform	360.0			No	MEC < C & B is ND
23	Chlorodibromomethane	34.00	19.9	ND	No	MEC < C & B is ND
26	Chloroform	No Criteria	0.65 ³	ND	No	No Criteria
27	Dichlorobromomethane	46.00	6.31	ND	No	MEC < C & B is ND
28	1,2-Dichloroethane	No Criteria	ND	ND	No	No Criteria
33	Ethylbenzene	29,000	32.5	ND	No	MEC < C & B is ND
38	Tetrachloroethylene	8.9	ND	ND	No	MEC & B are ND
39	Toluene	200,000	3.68	ND	No	MEC < C & B is ND
68	Bis(2-Ethylhexyl) Phthalate	5.9			No	MEC is ND & B < C

¹ ND = Non-detect

² Dry-weather only. Reasonable potential for zinc during wet-weather and applicable wet-weather WLAs are established in the Metals TMDL for the Los Angeles River.

³ Detected but not quantified.

Pursuant to the Nutrients TMDL for the Los Angeles River as described in Regional Water Board Resolution No. 03-009, WQBELs for ammonia-nitrogen, nitrate-nitrogen, nitrite-nitrogen, and nitrate-nitrogen plus nitrite-nitrogen are established in this Order.

Pursuant to the Metals TMDL for the Los Angeles River as described in Regional Water Board Resolution No. 2005-006, as amended by Resolution No. 2007-014, WQBELs for cadmium, copper, lead, and zinc are established in this Order. The TMDL establishes WLAs for both dry and wet weather conditions. Dry-weather WQBELs are required for copper and lead. Wet-weather WQBELs are required for copper, lead, cadmium, and zinc.

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 wasteload allocation (WLA) established as part of a total maximum daily load (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. The WQBELs for total recoverable zinc (dry-weather only) are based on monitoring results and following the procedure in Section 1.4 of the SIP.
- c. The dry-weather WQBELs for copper and zinc, and wet-weather WQBELs for cadmium, copper, lead, and zinc are based on the WLAs established in the Metals TMDL and the procedures specified in Section 1.4 of the SIP. The Metals TMDL states that dry-weather limits are applicable when the flow of the Los Angeles River is less than 500 cubic feet per second (cfs) and the wet-weather limits are applicable with the flow of the Los Angeles River is 500 cfs or more.
- d. Since many of the streams in the Los Angeles Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this proposed Order, no dilution credit is being allowed. However, in accordance with the reopener provision in section VI.C.1.e of 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.
- e. WQBELs Calculation Examples

Using total recoverable copper (dry-weather and wet-weather) and zinc (dry-weather) as examples, the following demonstrates how WQBELs were established for this Order.

Concentration-Based Effluent Limitations

A set of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL are selected as the WQBEL.

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 criteria determine the effluent concentration allowance (ECA) using the following steady state equation:

$$\begin{aligned} \text{ECA} &= C + D(C-B) && \text{when } C > B, \text{ and} \\ \text{ECA} &= C && \text{when } C = B, \end{aligned}$$

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. In this Order a hardness value of 186.5 mg/L (as CaCO₃) was used for development of hardness-dependant criteria for Discharge

Point No. 001, and a pH of 6.55 was used for pH-dependant 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 zinc (dry-weather) the applicable water quality criterion is the chronic CTR criterion.

ECA_{acute} = Not applicable (TMDL wet-weather WLA shall be applied)

$ECA_{chronic (zinc)}$ = 203.17 µg/L

Where a WLA has been established through a TMDL for a parameter, the WLA is set equal to the ECA.

For total recoverable copper the applicable WLAs are (reference Table F-8):

WLA_{wet} = 17 µg/L = $ECA_{acute (copper)}$

WLA_{dry} = 19 µg/L = $ECA_{chronic (copper)}$

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.

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

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

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.

For copper and zinc (dry-weather) the following data was used to develop the LTA 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 99}	ECA Multiplier _{chronic 99}
For copper (dry-weather)			
24	0.539	N/A	0.559
For copper (wet-weather)			
24	0.539	0.351	N/A
For zinc (dry-weather)			
24	0.749	N/A	0.460

Copper (dry-weather)

$$LTA_{acute} = ECA_{acute} \times Multiplier_{acute\ 99} = \text{Not applicable.}$$

$$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic\ 99} = 19\ \mu\text{g/L} \times 0.559 = 10.62\ \mu\text{g/L}$$

Copper (wet-weather)

$$LTA_{acute} = ECA_{acute} \times Multiplier_{acute\ 99} = 17\ \mu\text{g/L} \times 0.351 = 5.97\ \mu\text{g/L}$$

$$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic\ 99} = \text{Not applicable.}$$

Zinc (dry-weather)

$$LTA_{acute} = ECA_{acute} \times Multiplier_{acute\ 99} = \text{Not applicable.}$$

$$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic\ 99} = 203.17\ \mu\text{g/L} \times 0.460 = 93.46\ \mu\text{g/L}$$

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

Since acute criteria will be used to develop the wet-weather effluent limitations and chronic criteria will be used to develop the dry-weather effluent limitations we only have one criterion for each condition for the parameters listed in the Metals TMDL, thus both LTAs (wet and dry) will be used.

Since we only have chronic criteria for total recoverable zinc (dry-weather), the chronic criterion must be used.

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as an 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 coefficient of variation (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.

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

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

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 copper and zinc (dry-weather), the following data was used to develop the AMEL and MDEL for aquatic life using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	Multiplier _{MDEL 99}	Multiplier _{AMEL 95}
For copper			
4	0.539	2.850	1.493
For zinc			
4	0.749	3.781	1.700

Copper_{dry}

$$AMEL_{\text{dry}} = 10.62 \times 1.493 = 15.8 \text{ } \mu\text{g/L}$$

$$MDEL_{\text{dry}} = 10.62 \times 2.850 = 30.3 \text{ } \mu\text{g/L}$$

Copper_{wet}

$$AMEL_{\text{wet}} = 5.97 \times 1.493 = 8.91 \text{ } \mu\text{g/L}$$

$$MDEL_{\text{wet}} = 5.97 \times 2.850 = 17.0 \text{ } \mu\text{g/L}$$

Zinc (dry-weather)

$$AMEL_{\text{aquatic life}} = 93.46 \times 1.700 = 158.8 \text{ } \mu\text{g/L}$$

$$MDEL_{\text{aquatic life}} = 93.46 \times 3.781 = 353.3 \text{ } \mu\text{g/L}$$

Calculation of human health AMEL and MDEL:

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

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

For copper this is not necessary since the WLA was based on a TMDL.

For zinc, human health criterion is not established in the CTR.

Therefore, an AMEL based on human health criteria for copper and zinc is not appropriate.

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.

$$\text{MDEL}_{\text{human health}} = \text{AMEL}_{\text{human health}} \times (\text{Multiplier}_{\text{MDEL}} / \text{Multiplier}_{\text{AMEL}})$$

Step 6 is not applicable for the parameters addressed in this Order.

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the water-quality based effluent limit for the Order.

For the parameters subject to the Metals TMDL, such as copper, a comparison is not necessary and the effluent limitations are applied directly:

For copper:

AMEL _{dry}	MDEL _{dry}	AMEL _{human health}	MDEL _{human health}
16 µg/L	30 µg/L	Not Applicable	Not Applicable

AMEL _{wet}	MDEL _{wet}	AMEL _{human health}	MDEL _{human health}
8.9 µg/L	17 µg/L	Not Applicable	Not Applicable

For total recoverable zinc (dry-weather) human health criteria were not applicable, thus the aquatic life-based effluent limitations have been applied as the effluent limitations. Effluent limitations for zinc during wet-weather are based on the Metals TMDL:

For zinc (dry-weather):

AMEL _{aquatic life}	MDEL _{aquatic life}	AMEL _{human health}	MDEL _{human health}
159 µg/L	353 µg/L	Not Applicable	Not Applicable

Order No. R4-2005-0029 established MDELs, and no AMELs for WQBELs. This Order also establishes only MDELs for cadmium, copper, lead, and zinc based on the Los Angeles River TMDL and the CTR-SIP.

5. WQBELs based on Basin Plan Objectives

The Basin Plan states that the pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge. Based on the requirements of the Basin Plan, an instantaneous minimum limitation of 6.5 and an instantaneous maximum limitation of 8.5 for pH are included in the proposed permit. The effluent limitations for pH are carried forward from the previous Order.

The Basin Plan lists temperature requirements for the receiving waters and references the Thermal Plan. 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*, a maximum effluent temperature limitation of 86 °F is included in the permit. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. A survey was completed for several kinds of fish and the 86°F temperature was found to be protective. The effluent limitation for temperature is carried forward from the previous Order, which was based on the findings included in the white paper.

The Basin Plan, in Table 3-8, lists water quality objectives for selected parameters in inland surface waters. Water quality objectives for TDS, sulfate, and chloride for the Los Angeles River are established in the Basin Plan and included in this Order. The effluent limitations for TDS, sulfate, and chloride are established consistent with the water quality objectives contained in the Basin Plan. The Basin Plan also contains water quality coliform objectives for the protection of contact recreation, non-contact recreation, and shellfish harvesting beneficial uses. This Order includes receiving water limitations for fecal coliform in order to protect the contact water recreation (REC-1) beneficial use of the receiving water.

6. Whole Effluent Toxicity (WET)

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.

After the implementation of sand filtrations in January 2007, acute toxicity data reported by the Discharger showed a minimum of 95% survival. However, considering a variety of raw materials used in the manufacturing process that may contribute toxicity to the receiving water, this Order includes acute toxicity limitations and requires acute toxicity monitoring. In accordance with the Basin Plan, 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. Acute toxicity provisions in the Order are derived from the Basin Plan’s toxicity standards (Basin Plan 3-16 and 3-17). The provisions require the Discharger to accelerate

acute toxicity monitoring and take further actions to identify the source of toxicity and to reduce acute toxicity.

In addition to the Basin Plan requirements, section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. The discharges from the Facility are infrequent and typically short-term. The discharges at the Facility are not expected to contribute to long-term effects, therefore no chronic toxicity limitations or monitoring requirements are included in this Order. Intermittent discharges are likely to have short-term effects; therefore the Discharger is required to comply with acute toxicity effluent limitations in accordance with the Basin Plan and this Order.

7. Numeric Criterion for TCDD Equivalents

The CTR establishes numeric water quality objectives for 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD) for the protection of human health from consumption of aquatic organisms only and consumption of water and aquatic organisms, respectively. When CTR was promulgated, USEPA stated its support of the regulation of other dioxin and dioxin-like compounds through the use of toxicity equivalencies (TEQs) in NPDES permits. For California waters, USEPA stated specifically, "if the discharge of dioxin or dioxin-like compounds has reasonable potential to cause or contribute to a violation of a narrative criterion, numeric water quality-based effluent limitations for dioxin or dioxin-like compounds should be included in NPDES permits and should be expressed using a TEQ scheme" [65 Fed. Reg. 31682, 31695 (2000)]. This procedure, developed by the World Health Organization (WHO) in 1988, uses a set of toxicity equivalency factors (TEFs) to convert the concentration of any congener of dioxin or furan into an equivalent concentration of 2,3,7,8-TCDD. When the CTR was promulgated, USEPA also stated that the Agency will continue to assess the risks posed by dioxin to public health and the water quality criteria for dioxin that it had promulgated. To determine if the discharge of dioxin or dioxin-like compounds from the Facility has reasonable potential to cause or contribute to a violation of the Basin Plan's narrative water quality objective regarding bioaccumulation, Regional Water Board staff has therefore used TEFs to express the measured concentrations of 16 dioxin congeners in effluent and background samples as 2,3,7,8-TCDD. These "equivalent" concentrations are then compared to the numeric criterion, established by the CTR for 2,3,7,8-TCDD.

Dioxin-TEQ (TCDD-equivalent) values reflect the combined effect of numerous dioxin and furan compounds (congeners). The effluent limits implement the *Los Angeles Region (Region 4) Water Quality Control Plan's* (Basin Plan's) bioaccumulation objective:

Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

According to 40 CFR 122.44(d), where reasonable potential exists for a discharge to cause or contribute to violations of water quality objectives, water quality-based effluent limits must be established. If the potentially violated objective is narrative, the narrative objective must be translated into an effluent limitation. The dioxin-TEQ (TCDD-equivalent) effluent limitations in the permit are numeric translations of the Basin Plan narrative bioaccumulation objective.

The translations are based on relevant scientific information used to weight the congener concentrations with respect to their relative toxicities compared to the toxicity of a particular dioxin congener: 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD). The World Health Organization developed toxicity equivalency factors (TEFs) to convert congener concentrations into equivalent concentrations of 2,3,7,8-TCDD, which when added together are expressed as dioxin-TEQ (TCDD-equivalent). The *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy) specifies that the World Health Organization's 1998 TEFs are to be used to calculate dioxin-TEQ (TCDD-equivalent). To complete the translation of the Basin Plan's narrative bioaccumulation objective into a numeric effluent limit, dioxin-TEQ (TCDD-equivalent) limits are derived from the California Toxic Rule (40 CFR 131) numeric water quality objective for 2,3,7,8-TCDD (numeric objectives do not exist for the other congeners).

In February 2008, the San Francisco Estuary Institute convened an expert panel to provide an unbiased review and analysis of available information regarding San Francisco Bay dioxins and furans. Representatives of the Regional Water Board, the U.S. Environmental Protection Agency, the Bay Area Clean Water Agencies, and others with expertise in the field participated. The panel's recommendations included the following:

- Apply both TEFs and BEFs to dioxin and furan concentrations when calculating dioxin-TEQ (TCDD-equivalent); and
- Do not use dioxin and furan congener concentrations reported below MLs when computing dioxin-TEQ (TCDD-equivalent).

Bioaccumulation Equivalency Factors

The different dioxin and furan congeners exhibit different levels of toxicity, they also exhibit different levels of bioaccumulation potential. To account for the different levels of bioaccumulation potential, each congener may be assigned a bioaccumulation equivalency factor (BEF) relative to 2,3,7,8-TCDD. This is comparable to the TEFs that account for relative differences in toxicities. The BEFs shown in Table F-1 correspond to the differences in biological uptake from the water column for the various dioxin congeners. They come from the Great Lakes Water Quality Initiative.

In 1995, the U.S. Environmental Protection Agency adopted the approach of using both TEFs and BEFs to calculate dioxin-TEQ (TCDD-equivalent) for the Great Lakes System (40 CFR 132, Appendix F). In the absence of site-specific BEFs, the U.S. Environmental Protection Agency supports the use of national BEFs, stating, "...EPA

believes that national bioaccumulation factors are broadly applicable to sites throughout the United States and can be applied to achieve an acceptable degree of accuracy when estimating bioaccumulation potential at most sites." In its *Great Lakes Water Quality Initiative Technical Support Document for the Procedure to Determine Bioaccumulation Factors* (EPA-820-B-95-005), the U.S. Environmental Protection Agency states, "Limited comparison to BEFs calculated from data obtained for other ecosystems confirms these bioaccumulation potential differences for [dioxins and furans] for fish in ecosystems outside the Great Lakes." Recently, the U.S. Environmental Protection Agency and the Regional Water Board incorporated the national BEFs into the dioxin-TEQ (TCDD-equivalent) calculations required for the NPDES permit for the City and County of San Francisco's Oceanside Water Pollution Control Plant (Order Number R2-2009-062).

The San Francisco Estuary Institute's expert panel concluded that, if suitable data are unavailable to derive site-specific BEFs for the San Francisco Bay Region, use of the BEFs derived for the Great Lakes System is preferable to omitting BEFs altogether. The panel concluded that, because BEFs for the congeners most commonly detected in wastewater can be as low as 0.01, calculating dioxin-TEQ (TCDD-equivalent) without BEFs (the current practice) may mischaracterize the significance of dioxin and furan discharges by as much as two orders of magnitude. Therefore, for the purpose of determining compliance with effluent limits, this Order requires the Dischargers to calculate and report dioxin-TEQ (TCDD-equivalent) using the following formula, where the TEFs and BEFs are as listed in Table F-1:

$$\text{Dioxin-TEQ (TCDD-equivalent)} = \sum (C_x \times \text{TEF}_x \times \text{BEF}_x)$$

where:

C_x = concentration of dioxin or furan congener x

TEF_x = TEF for congener x

BEF_x = BEF for congener x

Minimum Levels, Toxicity Equivalency Factors and Bioaccumulation Equivalency Factors

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

Minimum Levels (MLs)

For purposes of laboratory analysis, reporting, and compliance, the minimum level (ML) is the concentration at which the entire analytical system gives a recognizable signal and acceptable calibration point. Below the ML, detected concentrations can sometimes be estimated, but not with sufficient analytical confidence for regulatory compliance purposes. Currently, the Dischargers analyze dioxin and furan congeners in wastewater using the latest version of U.S. Environmental Protection Agency Method 1613 (*Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS*, USEPA 1994). Many permits set forth the dioxin and furan MLs for reporting and compliance purposes as equal to one half the default MLs specified in Method 1613. This Order revises the dioxin and furan MLs to be consistent among all permits and with Method 1613.

This Order also requires the Dischargers to exclude estimated congener concentrations below MLs when calculating dioxin-TEQ (TCDD-equivalent) for the purpose of determining compliance with effluent limits. When a dioxin or furan congener is detected below its ML, its concentration could be as high as the ML or as low as zero. Dioxin and furan concentrations measured in effluent using high-volume screening techniques have often been orders of magnitude lower than Method 1613's default MLs. Therefore, the San Francisco Estuary Institute's expert panel concluded that assuming congeners detected below MLs are present at concentrations equal to the MLs (or one half the MLs) probably mischaracterizes the significance of dioxin and furan discharges by orders of magnitude. Moreover, when calculating dioxin-TEQ (TCDD-equivalent), the errors associated with adding multiple estimated values compound, resulting in values too uncertain for regulatory compliance purposes. Excluding values below MLs when adding multiple data points is consistent with how the U.S. Environmental Protection Agency directs dischargers to calculate averages when some data are below practical quantitation limits (comparable to MLs). When adding values to determine averages, data points below the practical quantitation limit are to be treated as zeros ("Instructions for Completing EPA Form 3320-1" [Rev. 01/06]).

This Order includes the dioxin and furan MLs, the Dischargers must continue to report all measured and estimated congener concentrations with appropriate data qualifiers.

8. Final WQBELs

This Order includes effluent limitations for cadmium, copper, lead, zinc, and nutrients based on TMDLs for the Los Angeles River. It includes wet weather limits for cadmium, copper, lead, and zinc, and establishes separate dry-weather limits for copper and lead, based on the metals TMDL for the Los Angeles River. This Order also establishes dry weather limits for zinc based on CTR and SIP procedures. Further, this Order establishes effluent limitations for ammonia-nitrogen, nitrate-nitrogen, nitrite-nitrogen, and nitrate-nitrogen plus nitrite-nitrogen based on the Nutrients TMDL for the Los Angeles River. Effluent limitations for TDS, sulfate and chloride, consistent with the water quality objectives contained in the Basin Plan, are also included and this Order carries forward effluent limitations from the existing permit (e.g., TSS, BOD, oil and grease and phenols)

Table F-10. Summary of Water Quality-based Effluent Limitations Discharge Point No. 001

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	pH Units	---	---	6.5	8.5
Temperature	°F	---	---	---	86
Total Dissolved Solids	mg/L	---	1500	---	---
Sulfate	mg/L	---	350	---	---
Chloride	mg/L	---	150	---	---
Total Ammonia (as nitrogen)	mg/L	2.3	10.1	---	---
Nitrate-nitrogen (NO ₃ -N)	mg/L	8	---	---	---
Nitrite-nitrogen (NO ₂ -N)	mg/L	1	---	---	---
Nitrate-nitrogen + Nitrite-nitrogen (NO ₃ -N + NO ₂ -N) ¹	mg/L	8	---	---	---
Cadmium, Total Recoverable (Wet-weather)	µg/L	1.5	3.1	---	---
Copper, Total Recoverable (Dry-weather) ¹	µg/L	16	30	---	---
Copper, Total Recoverable (Wet-weather) ¹	µg/L	8.9	17	---	---
Lead, Total Recoverable (Dry-weather) ¹	µg/L	7.3	15	---	---
Lead, Total Recoverable (Wet-weather) ¹	µg/L	31	62	---	---
Zinc, Total Recoverable (Dry-weather) ¹	µg/L	159	353	---	---
Zinc, Total Recoverable (Wet-weather) ¹	µg/L	71	159	---	---
Acute Toxicity	% survival	Average survival for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.			

¹ Dry-weather effluent limitations are applicable when the maximum daily flow in the Los Angeles River at Willow Street gage station at Wardlow (Wardlow station) is less than 500 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in the Los Angeles River is

equal to or greater than 500 cfs. The daily flow data at Wardlow station is posted on the Department of Public Works, Los Angeles County web site at <http://ladpw.org/wrd/report/0506/runoff/>.

D. Final Effluent Limitations

Section 402(o) of the CWA and section 122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders based on the submitted sampling data. Effluent limitations for pH, temperature, BOD₅, oil and grease, TSS, phenols, and acute toxicity are being carried over from the previous Order (Order No. R4-2005-0029). Removal of these numeric limitations would constitute backsliding under CWA section 402(o). The Regional Water Board has determined that these numeric effluent limitations continue to be applicable to the Facility. Effluent limitations for sulfate and chloride are newly prescribed based on water quality objectives in the Basin Plan.

Effluent limitations for cadmium, copper, lead, and zinc are revised to achieve the criteria specified in the TMDLs. Pursuant to Resolution R05-006 (the TMDL for Metals in the Los Angeles River), WQBELs for cadmium and zinc are not applicable during dry-weather conditions. In addition, separate wet-weather and dry-weather WQBELs have been established for copper and lead. Wet-weather conditions are defined in the TMDL as days when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cfs.

In addition to these limitations, the Regional Water Board is implementing the CTR and SIP, and effluent limitations are only prescribed for those regulated pollutants that show reasonable potential to exceed water quality standards.

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. However, 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 limitation on a case-by-case basis limitation 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. New mass-based limitations at Discharge Point No. 001 are included in this Order to comply with Section 122.45(f)(1).

1. Satisfaction of Anti-Backsliding Requirements

Some effluent limitations in this Order are less stringent than those in the current Order. As discussed below this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

Order No. R4-2005-0029 established effluent limitations for hexavalent chromium, nickel, 1,2-dichloroethane, benzene, bis(2-ethylhexyl) phthalate, tetrachloroethylene and toluene. Based on the results of the RPA, reasonable potential for these

pollutants to exceed water quality criteria was not observed. Consistent with 40 CFR 122.44(l), based on the new effluent data and the most recent RPA, effluent limitations for these pollutants were removed. However, monitoring for these pollutants are still required in the Order as part of the priority pollutant monitoring to ensure that the potential for these parameters to exceed water quality criteria can continue to be evaluated. The removal of these effluent limitations is consistent with the exceptions to the anti-backsliding regulations because it reflected "new information" that was not available during the existing permit renewal.

The effluent limitations calculated as specified in Section 1.4 of the SIP for cadmium, copper, lead, and zinc, as described in section IV.C.4 of this Fact Sheet, have been compared to the final MDELs contained in Order No. R4-2005-0028. A summary of this comparison is provided in Table F-11.

Table F-11. Effluent Limitation Comparison for Copper, Lead, and Zinc

Parameters		Calculated MDEL	Order No. R4-2005-0029 MDEL
Cadmium, Total Recoverable (µg/L)	Dry-weather	Not Applicable	--
	Wet-weather	3.1	--
Copper, Total Recoverable (µg/L)	Dry-weather	30	14
	Wet-weather	17	14
Lead, Total Recoverable (µg/L)	Dry-weather	15	5
	Wet-weather	62	5
Zinc, Total Recoverable (µg/L)	Dry-weather	353 ¹	120
	Wet-weather	159	120

¹ The dry-weather effluent limitations for zinc are based on effluent monitoring data and Section 1.4 of the SIP. The Los Angeles River and Tributaries Metals TMDL does not establish a WLA for zinc during dry-weather.

The MDELs for copper, lead and zinc are less stringent than the MDELs established in Order No. R4-2005-0029. Typically State and federal anti-backsliding regulations require that effluent limitations established in new permits be at least as stringent as the effluent limitations in the previous permit, with some exceptions. Section 303(d)(4) of the CWA allows for backsliding if the less stringent limitations are based on a TMDL with the cumulative effect being that the limitations assure attainment of water quality standards in the receiving water for those specific parameters. The WLAs in the Metals TMDL for cadmium, copper, lead and zinc were derived based on CTR criteria with the purpose of attaining water quality standards in the receiving water. Thus, the application of the newly calculated TMDL-based effluent limitations for cadmium, copper, lead, and zinc, even if less stringent than the previous effluent limitations, are consistent with State and federal anti-backsliding regulations and are expected to be protective of water quality. The dry-weather MDEL for zinc is less stringent than the MDEL contained in Order No. R4-2005-0029 and derived based on new effluent monitoring data and the SIP procedure. This relaxation is consistent with the exceptions to the anti-backsliding regulations because it reflected "new information" that was not available during the existing permit renewal.

All other effluent limitations are at least as stringent as the effluent limitations in the previous permit.

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.

This Order does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment. The final limitations in this Order 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. Therefore, the issuance of this permit is consistent with the state's antidegradation policy.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on TSS, BOD₅, oil and grease, and phenols. Restrictions on these parameters are discussed in section IV.B.2. 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.

In addition to the technology-based effluent limitations, the SWPPP, BMPs, and the SPCC Plan will also serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

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. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs 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. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Table F-12. Summary of Final Effluent Limitations Discharge Point No. 001

Parameter	Units	Effluent Limitations				Basis ¹
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
pH	pH Units	---	---	6.5	8.5	E, BP
Temperature	°F	---	---	---	86	E, BP
BOD ₅	mg/L	--	30	---	---	E, BPJ
	lbs/day ²	--	85	---	---	
Total Suspended Solids	mg/L	--	75	---	---	E, BPJ
	lbs/day ²	--	213	---	---	
Total Dissolved Solids	mg/L	--	1500	---	---	BP
	lbs/day ²	--	4250	---	---	
Oil and Grease	mg/L	--	15	---	---	E, BPJ
	lbs/day ²	--	43	---	---	
Phenols	mg/L	---	1.0	---	---	E, BPJ
	lbs/day ²	---	2.8	---	---	
Sulfate	mg/L	--	350	---	---	BP
	lbs/day ²	--	990	---	---	
Chloride	mg/L	--	150	---	---	BP
	lbs/day ²	--	430	---	---	
Total Ammonia (as nitrogen) ³	mg/L	--	10.1	--	--	TMDL
	lbs/day ²	--	27	--	--	
Nitrate-nitrogen (NO ₃ -N) ⁴	mg/L	8	--	--	--	TMDL
	lbs/day ²	23	--	--	--	
Nitrite-nitrogen (NO ₂ -N) ⁴	mg/L	1	--	--	--	TMDL
	lbs/day ²	2.8	--	--	--	
Nitrate-nitrogen + Nitrite-nitrogen (NO ₃ -N + NO ₂ -N) ⁴	mg/L	8	--	--	--	TMDL
	lbs/day ²	23	--	--	--	
Cadmium, Total Recoverable (Wet-weather) ⁵	µg/L	--	3.1	---	---	TMDL
	lbs/day ²	--	8.8	---	---	
Copper, Total Recoverable (Dry-weather) ⁵	µg/L	--	30	---	---	TMDL
	lbs/day ²	--	85	---	---	
Copper, Total Recoverable (Wet-weather) ⁵	µg/L	--	17	---	---	TMDL
	lbs/day ²	--	48	---	---	
Lead, Total Recoverable (Dry-weather) ⁵	µg/L	--	15	---	---	TMDL
	lbs/day ²	--	43	---	---	
Lead, Total Recoverable (Wet-weather) ⁵	µg/L	--	62	---	---	TMDL
	lbs/day ²	--	180	---	---	
Zinc, Total Recoverable (Dry-weather) ⁵	µg/L	--	353	---	---	CTR
	lbs/day ²	--	1000	---	---	
Zinc, Total Recoverable (Wet-weather) ⁵	µg/L	--	159	---	---	TMDL
	lbs/day	--	450	---	---	
Acute Toxicity	% Survival	6				E, BP

1. BP = Basin Plan; E = Existing Order; BPJ = Best Professional Judgment; TMDL = Total Maximum Daily Load; CTR = California Toxics Rule
2. Based on a flow of 0.34 MGD.
3. This limitation is based on the ammonia one-hour average WLA in nitrogen compounds TMDL.
4. Since there are no daily maximum WLAs established in the TMDL, the monthly average WLAs are used. The Discharger must demonstrate compliance with the monthly average limitations.
5. Dry-weather effluent limitations are applicable when the maximum daily flow in the Los Angeles River at Willow Street gage station at Wardlow (Wardlow station) is less than 500 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cfs. The daily flow data at Wardlow station is posted on the Department of Public Works, Los Angeles County web site at <http://ladpw.org/wrd/report/0506/runoff/>.
6. 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 tests shall be at least 90%, and
 - ii. No single test producing less than 70% survival.

4. Mass-based Effluent Limitations

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

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} \times 8.34 \times \text{effluent limitation (mg/L)}$$

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

E. Interim Effluent Limitations – Not Applicable

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. 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 Monitoring and Reporting Program (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 those pollutants expected to be present in the Monitoring Location EFF-001 at Discharge Point No. 001 will be required as shown in the MRP. To determine compliance with effluent limitations, the MRP carries forward monitoring requirements from previous Order No. R4-2005-0029 for Discharge Point No. 001 with some modifications. In this Order, monitoring requirements for those pollutants with effluent limitations are once per discharge event, but not more than once per week. The same monitoring requirements (once per discharge event) for nitrogen compounds, total dissolved solids (TDS), sulfate, and chloride have also been established to determine compliance with the new nitrogen compound effluent limitations, based on Resolution Nos. 03-009 and 03-016, and newly prescribed effluent limitations for TDS, sulfate and chloride. Hexavalent chromium, 1,2-dichloroethane, benzene, bis(2-ethylhexyl) phthalate, and tetrachloroethylene are required to be monitored along with the remaining priority pollutants which are monitored annually. These pollutants were not detected in the last permit term and have no effluent limitations. The MRP requires once per discharge event monitoring for nickel, bromoform, chlorodibromomethane, chloroform, dichlorobromomethane, ethylbenzene and toluene since these pollutants were detected in the last permit term. In addition, monitoring for total petroleum hydrocarbon (gasoline, diesel and waste oil), total organic carbon, chemical oxygen demand and acute toxicity is annually in order to assess the general quality of the storm water. Furthermore, this Order requires annual monitoring for E. coli and fecal coliform for data collection although the water storage tank is a closed system.

Monitoring requirements for Discharge Point No. 002 (formerly referred to as the West Gate) has been removed because the Discharger completed a new storm water treatment system in January 2007, to eliminate storm water discharges from Discharge Point No. 002, and now treats all storm water from the Facility before discharging the water to the storm drain catch basin on Lynwood Road (located near the East Gate). The storm drain catch basin on Lynwood Road (located near the East Gate) represents the single point of discharge for the Facility (Discharge Point No. 001).

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. This Order includes limitations for acute toxicity, and therefore, monitoring requirements are included in the MRP to determine compliance with the effluent limitations.

Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. The discharges from the Facility are intermittent and short in nature; therefore, chronic toxicity testing will not be required.

D. Receiving Water Monitoring

1. Surface Water

According to the SIP, the Discharger is required to monitor the upstream receiving water for the CTR priority pollutants, to determine reasonable potential. Accordingly, the Regional Water Board is requiring that the Discharger conduct annual, upstream receiving water monitoring for the CTR priority pollutants at Monitoring Location RSW-001. The Discharger must analyze temperature, pH, salinity, and hardness of the upstream receiving water at the same time the samples are collected for priority pollutants analysis.

The Discharger is required to report the maximum daily flow in the Los Angeles River, at the Los Angeles County Department of Public Works' Willow Street Gage Station at Wardlow. For the purposes of this permit, this station is also known as RSW-002. The daily flow data at Wardlow station is posted on the Department of Public Works, Los Angeles County web site at <http://ladpw.org/wrd/report/0506/runoff/>. This information is necessary to determine the wet-weather and dry-weather condition of the river, as defined in the Los Angeles River Metals TMDL.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements

1. Storm Water Monitoring

Because the discharge is comprised of storm water runoff, the Discharger is required to measure and record the rainfall each day of the month. The Discharger is also required to conduct visual observations of all storm water discharges in the vicinity of the discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor.

2. SWPPP, BMPP and SPCC Plan Effectiveness Report

The Discharger is required by Special Provision VI.C.3 of the Order to update and implement a SWPPP, BMPs, and SPCC Plan. This Order requires the Discharger to report on the effectiveness of the plans and update them as needed to ensure all actual or potential sources of pollutants in the wastewater and storm water discharged from the Facility are addressed.

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.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

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.

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, which establishes minimum toxicity control requirements for implementing the narrative toxicity objective for aquatic life protection established in the basin plans of the State of California.

3. Best Management Practices and Pollution Prevention

The objective of this Order is to protect the beneficial uses of the receiving waters. To meet this objective, this Order requires the Discharger to update and continue to implement an updated SWPPP and address storm water runoff to the storm drain that discharges to the Compton Creek. This is consistent with the SWPPP requirements in the NPDES General Permit for Storm Water Discharges Associated with Industrial Activity (State Water Board Order No. 97-03-DWQ, NPDES Permit No. CAS000001). A SWPPP outlines site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters. Storm water discharges do occur at the Facility, and best management practices are identified as one method to reduce contamination of storm water.

This provision is based on section 122.44(k) and includes the requirement to develop a SWPPP.

The Discharger uses, stores, handles and disposes of materials, chemicals, and wastes at the Facility, and conducts operational and maintenance activities to its facility and equipment that are potential or existing sources of pollutants in wastewater discharged from the Facility to the receiving water. Therefore, this Order requires the Discharger to develop and implement a BMPP that includes site-specific plans, procedures, and practices to minimize the amount of pollutants entering wastewater discharges from materials being stored and activities being conducted throughout the entire facility. To ensure the Discharger considers and implements appropriate and effective BMPs, the Discharger is required to consider implementing BMPs contained in the USEPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004) or equivalent alternatives when developing its BMPP.

- 4. Construction, Operation, and Maintenance Specifications – Not Applicable**
- 5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable**
- 6. Other Special Provisions – Not Applicable**
- 7. Compliance Schedules – Not Applicable**

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for Hexion Specialty Chemicals – Lynwood Facility. As a step in the WDR adoption process, the Regional Water Board staff has developed 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. Notification was provided to all interested parties.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these 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 13, 2010**.

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 2, 2010
Time: 9:00 A.M.
Location: Metropolitan Water District, Board Room
700 N. 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 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 13, 2010**. 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 (RWD), 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 Jau Ren Chen at (213) 576-6653.

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 90 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 8-1/2 x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

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

<p>PLANNING AND ORGANIZATION</p> <p>Form Pollution Prevention Team Review other plans</p>
<p>ASSESSMENT PHASE</p> <p>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</p>
<p>BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE</p> <p>Non-structural BMPs Structural BMPs Select activity and site-specific BMPs</p>

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 A.4.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 and their sources. As part of this

investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

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

Non-storm water discharges (other boiler blowdown and boiler condensate permitted under the Order) 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 8 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 (Sections A.6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

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

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery. 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 A.8.b. below). Below is a list of non-structural BMPs that should be considered:

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

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.

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	Methods in 40 CFR part 136
2	Arsenic	7440382	Methods in 40 CFR part 136
3	Beryllium	7440417	Methods in 40 CFR part 136
4	Cadmium	7440439	Methods in 40 CFR part 136
5a	Chromium (III)	16065831	Methods in 40 CFR part 136
5a	Chromium (VI)	18540299	Methods in 40 CFR part 136
6	Copper	7440508	Methods in 40 CFR part 136
7	Lead	7439921	Methods in 40 CFR part 136
8	Mercury	7439976	Methods in 40 CFR part 136
9	Nickel	7440020	Methods in 40 CFR part 136
10	Selenium	7782492	Methods in 40 CFR part 136
11	Silver	7440224	Methods in 40 CFR part 136
12	Thallium	7440280	Methods in 40 CFR part 136
13	Zinc	7440666	Methods in 40 CFR part 136
14	Cyanide	57125	Methods in 40 CFR part 136
15	Asbestos	1332214	Methods in 40 CFR part 136
16	2,3,7,8-TCDD	1746016	Methods in 40 CFR part 136
17	Acrolein	107028	Methods in 40 CFR part 136
18	Acrylonitrile	107131	Methods in 40 CFR part 136
19	Benzene	71432	Methods in 40 CFR part 136
20	Bromoform	75252	Methods in 40 CFR part 136
21	Carbon Tetrachloride	56235	Methods in 40 CFR part 136
22	Chlorobenzene	108907	Methods in 40 CFR part 136
23	Chlorodibromomethane	124481	Methods in 40 CFR part 136
24	Chloroethane	75003	Methods in 40 CFR part 136
25	2-Chloroethylvinyl Ether	110758	Methods in 40 CFR part 136
26	Chloroform	67663	Methods in 40 CFR part 136
27	Dichlorobromomethane	75274	Methods in 40 CFR part 136
28	1,1-Dichloroethane	75343	Methods in 40 CFR part 136
29	1,2-Dichloroethane	107062	Methods in 40 CFR part 136
30	1,1-Dichloroethylene	75354	Methods in 40 CFR part 136
31	1,2-Dichloropropane	78875	Methods in 40 CFR part 136
32	1,3-Dichloropropylene	542756	Methods in 40 CFR part 136
33	Ethylbenzene	100414	Methods in 40 CFR part 136
34	Methyl Bromide	74839	Methods in 40 CFR part 136
35	Methyl Chloride	74873	Methods in 40 CFR part 136
36	Methylene Chloride	75092	Methods in 40 CFR part 136
37	1,1,2,2-Tetrachloroethane	79345	Methods in 40 CFR part 136
38	Tetrachloroethylene	127184	Methods in 40 CFR part 136
39	Toluene	108883	Methods in 40 CFR part 136
40	1,2-Trans-Dichloroethylene	156605	Methods in 40 CFR part 136
41	1,1,1-Trichloroethane	71556	Methods in 40 CFR part 136
42	1,1,2-Trichloroethane	79005	Methods in 40 CFR part 136
43	Trichloroethylene	79016	Methods in 40 CFR part 136

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
44	Vinyl Chloride	75014	Methods in 40 CFR part 136
45	2-Chlorophenol	95578	Methods in 40 CFR part 136
46	2,4-Dichlorophenol	120832	Methods in 40 CFR part 136
47	2,4-Dimethylphenol	105679	Methods in 40 CFR part 136
48	2-Methyl-4,6-Dinitrophenol	534521	Methods in 40 CFR part 136
49	2,4-Dinitrophenol	51285	Methods in 40 CFR part 136
50	2-Nitrophenol	88755	Methods in 40 CFR part 136
51	4-Nitrophenol	100027	Methods in 40 CFR part 136
52	3-Methyl-4-Chlorophenol	59507	Methods in 40 CFR part 136
53	Pentachlorophenol	87865	Methods in 40 CFR part 136
54	Phenol	108952	Methods in 40 CFR part 136
55	2,4,6-Trichlorophenol	88062	Methods in 40 CFR part 136
56	Acenaphthene	83329	Methods in 40 CFR part 136
57	Acenaphthylene	208968	Methods in 40 CFR part 136
58	Anthracene	120127	Methods in 40 CFR part 136
59	Benzidine	92875	Methods in 40 CFR part 136
60	Benzo(a)Anthracene	56553	Methods in 40 CFR part 136
61	Benzo(a)Pyrene	50328	Methods in 40 CFR part 136
62	Benzo(b)Fluoranthene	205992	Methods in 40 CFR part 136
63	Benzo(ghi)Perylene	191242	Methods in 40 CFR part 136
64	Benzo(k)Fluoranthene	207089	Methods in 40 CFR part 136
65	Bis(2-Chloroethoxy)Methane	111911	Methods in 40 CFR part 136
66	Bis(2-Chloroethyl)Ether	111444	Methods in 40 CFR part 136
67	Bis(2-Chloroisopropyl)Ether	108601	Methods in 40 CFR part 136
68	Bis(2-Ethylhexyl)Phthalate	117817	Methods in 40 CFR part 136
69	4-Bromophenyl Phenyl Ether	101553	Methods in 40 CFR part 136
70	Butylbenzyl Phthalate	85687	Methods in 40 CFR part 136
71	2-Chloronaphthalene	91587	Methods in 40 CFR part 136
72	4-Chlorophenyl Phenyl Ether	7005723	Methods in 40 CFR part 136
73	Chrysene	218019	Methods in 40 CFR part 136
74	Dibenzo(a,h)Anthracene	53703	Methods in 40 CFR part 136
75	1,2-Dichlorobenzene	95501	Methods in 40 CFR part 136
76	1,3-Dichlorobenzene	541731	Methods in 40 CFR part 136
77	1,4-Dichlorobenzene	106467	Methods in 40 CFR part 136
78	3,3'-Dichlorobenzidine	91941	Methods in 40 CFR part 136
79	Diethyl Phthalate	84662	Methods in 40 CFR part 136
80	Dimethyl Phthalate	131113	Methods in 40 CFR part 136
81	Di-n-Butyl Phthalate	84742	Methods in 40 CFR part 136
82	2,4-Dinitrotoluene	121142	Methods in 40 CFR part 136
83	2,6-Dinitrotoluene	606202	Methods in 40 CFR part 136
84	Di-n-Octyl Phthalate	117840	Methods in 40 CFR part 136
85	1,2-Diphenylhydrazine	122667	Methods in 40 CFR part 136
86	Fluoranthene	206440	Methods in 40 CFR part 136
87	Fluorene	86737	Methods in 40 CFR part 136
88	Hexachlorobenzene	118741	Methods in 40 CFR part 136

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
89	Hexachlorobutadiene	87863	Methods in 40 CFR part 136
90	Hexachlorocyclopentadiene	77474	Methods in 40 CFR part 136
91	Hexachloroethane	67721	Methods in 40 CFR part 136
92	Indeno(1,2,3-cd)Pyrene	193395	Methods in 40 CFR part 136
93	Isophorone	78591	Methods in 40 CFR part 136
94	Naphthalene	91203	Methods in 40 CFR part 136
95	Nitrobenzene	98953	Methods in 40 CFR part 136
96	N-Nitrosodimethylamine	62759	Methods in 40 CFR part 136
97	N-Nitrosodi-n-Propylamine	621647	Methods in 40 CFR part 136
98	N-Nitrosodiphenylamine	86306	Methods in 40 CFR part 136
99	Phenanthrene	85018	Methods in 40 CFR part 136
100	Pyrene	129000	Methods in 40 CFR part 136
101	1,2,4-Trichlorobenzene	120821	Methods in 40 CFR part 136
102	Aldrin	309002	Methods in 40 CFR part 136
103	alpha-BHC	319846	Methods in 40 CFR part 136
104	beta-BHC	319857	Methods in 40 CFR part 136
105	gamma-BHC	58899	Methods in 40 CFR part 136
106	delta-BHC	319868	Methods in 40 CFR part 136
107	Chlordane	57749	Methods in 40 CFR part 136
108	4,4'-DDT	50293	Methods in 40 CFR part 136
109	4,4'-DDE	72559	Methods in 40 CFR part 136
110	4,4'-DDD	72548	Methods in 40 CFR part 136
111	Dieldrin	60571	Methods in 40 CFR part 136
112	alpha-Endosulfan	959988	Methods in 40 CFR part 136
113	beta-Endosulfan	33213659	Methods in 40 CFR part 136
114	Endosulfan Sulfate	1031078	Methods in 40 CFR part 136
115	Endrin	72208	Methods in 40 CFR part 136
116	Endrin Aldehyde	7421934	Methods in 40 CFR part 136
117	Heptachlor	76448	Methods in 40 CFR part 136
118	Heptachlor Epoxide	1024573	Methods in 40 CFR part 136
119	PCB-1016	12674112	Methods in 40 CFR part 136
120	PCB-1221	11104282	Methods in 40 CFR part 136
121	PCB-1232	11141165	Methods in 40 CFR part 136
122	PCB-1242	53469219	Methods in 40 CFR part 136
123	PCB-1248	12672296	Methods in 40 CFR part 136
124	PCB-1254	11097691	Methods in 40 CFR part 136
125	PCB-1260	11096825	Methods in 40 CFR part 136
126	Toxaphene	8001352	Methods in 40 CFR part 136

ATTACHMENT J – SUMMARY OF REASONABLE POTENTIAL ANALYSIS

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)						Lowest C or TMDL	
					Freshwater		Saltwater		Human Health for consumption of:			TMDL
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
1	Antimony	ug/L	0.6	5						4300	NA	4300.00
2	Arsenic	ug/L	0.6	10	340.00	150.00					NA	150.00
3	Beryllium	ug/L	0.6	No Criteria						Narrative	NA	No Criteria
4	Cadmium	ug/L	0.6	0.5	9.12	4.02				Narrative		4.02
5a	Chromium (III)		0.6	10	2893.10	344.84				Narrative	NA	344.84
5b	Chromium (VI)	ug/L	0.6	5	16.29	11.43				Narrative	NA	11.43
6	Copper	ug/L	0.539	17	25.18	15.89					19	19.00
7	Lead	ug/L	0.6	1.67	180.51	7.03				Narrative	8.9	8.90
8	Mercury	ug/L	0.6		Reserved	Reserved				0.051	NA	0.051
9	Nickel	ug/L	0.6	11	794.93	88.38				4600	NA	88.38
10	Selenium	ug/L	0.6	2		5.00				Narrative	NA	5.00
11	Silver	ug/L	0.6	0.25	11.86						NA	11.86
12	Thallium	ug/L	0.6	1						6.30	NA	6.30
13	Zinc	ug/L	0.749	429	203.17	203.17						203.17
14	Cyanide	ug/L	0.6		22.00	5.20				220000	NA	5.20
15	Asbestos	Fibers/L	0.6	No Criteria							NA	No Criteria
16	2,3,7,8 TCDD	ug/L	0.6							0.00000014	NA	0.00000014
17	Acrolein	ug/L	0.6	5						780	NA	780
18	Acrylonitrile	ug/L	0.6							0.66	NA	0.660
19	Benzene	ug/L	0.6	0.5						71	NA	71.0
20	Bromoform	ug/L	0.6	16.6						360	NA	360.0
21	Carbon Tetrachloride	ug/L	0.6	0.5						4.40	NA	4.40
22	Chlorobenzene	ug/L	0.6	0.5						21000	NA	21000
23	Chlorodibromomethane	ug/L	0.6	19.9						34	NA	34.00
24	Chloroethane	ug/L	0.6	No Criteria							NA	No Criteria
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							NA	No Criteria
26	Chloroform	ug/L	0.6	No Criteria							NA	No Criteria
27	Dichlorobromomethane	ug/L	0.6	6.31						46	NA	46.00
28	1,1-Dichloroethane	ug/L	0.6	No Criteria							NA	No Criteria
29	1,2-Dichloroethane	ug/L	0.6	0.5						99	NA	99.00
30	1,1-Dichloroethylene	ug/L	0.6	0.5						3.20	NA	3.200
31	1,2-Dichloropropane	ug/L	0.6	0.5						39.00	NA	39.00
32	1,3-Dichloropropylene	ug/L	0.6	0.5						1700	NA	1700
33	Ethylbenzene	ug/L	0.6	32.5						29000	NA	29000
34	Methyl Bromide	ug/L	0.6	1.5						4000	NA	4000
35	Methyl Chloride	ug/L	0.6	No Criteria							NA	No Criteria
36	Methylene Chloride	ug/L	0.6	0.5						1600	NA	1600.0
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5						11	NA	11.00
38	Tetrachloroethylene	ug/L	0.6	0.5						8.85	NA	8.9
39	Toluene	ug/L	0.6	3.68						200000	NA	200000
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5						140000	NA	140000
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria							NA	No Criteria
42	1,1,2-Trichloroethane	ug/L	0.6	0.5						42	NA	42.0
43	Trichloroethylene	ug/L	0.6	0.5						81	NA	81.0
44	Vinyl Chloride	ug/L	0.6	0.5						525	NA	525
45	2-Chlorophenol	ug/L	0.6	5						400	NA	400
46	2,4-Dichlorophenol	ug/L	0.6	5						790	NA	790

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)							
		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required
1	Antimony	No	No	Y	Y	5		N	No detected value of B, Step 7
2	Arsenic	No	No	Y	Y	10		N	No detected value of B, Step 7
3	Beryllium	No Criteria	No Criteria	Y	Y	0.5		N	No Criteria
4	Cadmium	No	No	Y	Y	0.5		N	No detected value of B, Step 7
5a	Chromium (III)	No	No	Y	Y	10		N	No detected value of B, Step 7
5b	Chromium (VI)	No	No	Y	Y	2		N	No detected value of B, Step 7
6	Copper	No	No	Y	N		50		Limit required, B>C & pollutant detected in effluent
7	Lead	No	No	Y	Y	0.5		N	No detected value of B, Step 7
8	Mercury			Y	Y	0.2		Y	No detected value of B, Step 7
9	Nickel	No	No	Y	Y	1		N	No detected value of B, Step 7
10	Selenium	No	No	Y	Y	2		N	No detected value of B, Step 7
11	Silver	No	No	Y	Y	0.25		N	No detected value of B, Step 7
12	Thallium	No	No	Y	Y	1		N	No detected value of B, Step 7
13	Zinc	Yes	Yes	Y	N		466		Limit required, B>C & pollutant detected in effluent
14	Cyanide			Y	Y	10		Y	No detected value of B, Step 7
15	Asbestos	No Criteria	No Criteria	N					No Criteria
16	2,3,7,8 TCDD			N					No detected value of B, Step 7
17	Acrolein	No	No	Y	Y	5		N	No detected value of B, Step 7
18	Acrylonitrile			Y	Y	2		Y	No detected value of B, Step 7
19	Benzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
20	Bromoform	No	No	Y	Y	0.5		N	No detected value of B, Step 7
21	Carbon Tetrachloride	No	No	Y	Y	0.5		N	No detected value of B, Step 7
22	Chlorobenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
23	Chlorodibromomethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
24	Chloroethane	No Criteria	No Criteria	Y	Y	1.5		N	No Criteria
25	2-Chloroethylvinyl ether	No Criteria	No Criteria	Y	Y	1		N	No Criteria
26	Chloroform	No Criteria	No Criteria	Y	Y				No Criteria
27	Dichlorobromomethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
28	1,1-Dichloroethane	No Criteria	No Criteria	Y	Y	0.5		N	No Criteria
29	1,2-Dichloroethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
30	1,1-Dichloroethylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
31	1,2-Dichloropropane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
32	1,3-Dichloropropylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
33	Ethylbenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
34	Methyl Bromide	No	No	Y	Y	1.5		N	No detected value of B, Step 7
35	Methyl Chloride	No Criteria	No Criteria	Y	Y	0.5		N	No Criteria
36	Methylene Chloride	No	No	Y	Y	0.5		N	No detected value of B, Step 7
37	1,1,2,2-Tetrachloroethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
38	Tetrachloroethylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
39	Toluene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
40	1,2-Trans-Dichloroethylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
41	1,1,1-Trichloroethane	No Criteria	No Criteria	Y	Y	0.5		N	No Criteria
42	1,1,2-Trichloroethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
43	Trichloroethylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
44	Vinyl Chloride	No	No	Y	Y	0.5		N	No detected value of B, Step 7
45	2-Chlorophenol	No	No	Y	Y	5		N	No detected value of B, Step 7
46	2,4-Dichlorophenol	No	No	Y	Y	5		N	No detected value of B, Step 7

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters				HUMAN HEALTH CALCULATIONS					
		Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	Organisms only			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier
					AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh			
1	Antimony		No	MEC<C & B is ND						
2	Arsenic		No	MEC<C & B is ND						
3	Beryllium	No Criteria	Uc	No Criteria						
4	Cadmium		No	MEC<C & B is ND						
5a	Chromium (III)		No	MEC<C & B is ND						
5b	Chromium (VI)		No	MEC<C & B is ND						
6	Copper	LA River TMDL	Yes	yes, TMDL		1.91		0.35		0.56
7	Lead	LA River TMDL	Yes	yes, TMDL		2.01		0.32		0.53
8	Mercury		No	UD; effluent ND, MDL>C, and B is						
9	Nickel		No	MEC<C & B is ND						
10	Selenium		No	MEC<C & B is ND						
11	Silver		No	MEC<C & B is ND						
12	Thallium		No	MEC<C & B is ND						
13	Zinc		Yes	MEC>=C		2.22		0.26		0.46
14	Cyanide		No	UD; effluent ND, MDL>C, and B is						
15	Asbestos	No Criteria	Uc	No Criteria						
16	2,3,7,8 TCDD		Ud	No effluent data & no B						
17	Acrolein		No	MEC<C & B is ND						
18	Acrylonitrile		No	UD; effluent ND, MDL>C, and B is						
19	Benzene		No	MEC<C & B is ND						
20	Bromoform		No	MEC<C & B is ND						
21	Carbon Tetrachloride		No	MEC<C & B is ND						
22	Chlorobenzene		No	MEC<C & B is ND						
23	Chlorodibromomethane		No	MEC<C & B is ND						
24	Chloroethane	No Criteria	Uc	No Criteria						
25	2-Chloroethylvinyl ether	No Criteria	Uc	No Criteria						
26	Chloroform	No Criteria	Uc	No Criteria						
27	Dichlorobromomethane		No	MEC<C & B is ND						
28	1,1-Dichloroethane	No Criteria	Uc	No Criteria						
29	1,2-Dichloroethane		No	MEC<C & B is ND						
30	1,1-Dichloroethylene		No	MEC<C & B is ND						
31	1,2-Dichloropropane		No	MEC<C & B is ND						
32	1,3-Dichloropropylene		No	MEC<C & B is ND						
33	Ethylbenzene		No	MEC<C & B is ND						
34	Methyl Bromide		No	MEC<C & B is ND						
35	Methyl Chloride	No Criteria	Uc	No Criteria						
36	Methylene Chloride		No	MEC<C & B is ND						
37	1,1,2,2-Tetrachloroethane		No	MEC<C & B is ND						
38	Tetrachloroethylene		No	MEC<C & B is ND						
39	Toluene		No	MEC<C & B is ND						
40	1,2-Trans-Dichloroethylene		No	MEC<C & B is ND						
41	1,1,1-Trichloroethane	No Criteria	Uc	No Criteria						
42	1,1,2-Trichloroethane		No	MEC<C & B is ND						
43	Trichloroethylene		No	MEC<C & B is ND						
44	Vinyl Chloride		No	MEC<C & B is ND						
45	2-Chlorophenol		No	MEC<C & B is ND						
46	2,4-Dichlorophenol		No	MEC<C & B is ND						

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	AQUATIC LIFE CALCULATIONS						LIMITS		Recommendation	Comment
		Saltwater / Freshwater / Basin Plan						Lowest AMEL	Lowest MDEL		
		LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life				
1	Antimony									No Limit	
2	Arsenic									No Limit	
3	Beryllium									No Limit	
4	Cadmium									No Limit	
5a	Chromium (III)									No Limit	
5b	Chromium (VI)									No Limit	
6	Copper	10.63	10.63	1.49	15.86	2.85	30.29	16	30	Limit based on TMDL	Dry-Weather Limit
7	Lead	4.69	4.69	1.55	7.29	3.11	14.62	7.3	15	Limit based on TMDL	Dry-Weather Limit
8	Mercury									No Limit	
9	Nickel									No Limit	
10	Selenium									No Limit	
11	Silver									No Limit	
12	Thallium									No Limit	
13	Zinc	93.37	93.37	1.70	158.73	3.78	353.08	159	353		
14	Cyanide									No Limit	
15	Asbestos									No Limit	
16	2,3,7,8 TCDD									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	

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)				Human Health for consumption of:	TMDL	Lowest C or TMDL			
					Freshwater		Saltwater					Water & organisms	Organisms only	Dry-Weather WLAs
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot						
47	2,4-Dimethylphenol	ug/L	0.6	2					2300	NA	2300			
48	4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5					765	NA	765.0			
49	2,4-Dinitrophenol	ug/L	0.6	5					14000	NA	14000			
50	2-Nitrophenol	ug/L	0.6	No Criteria						NA	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria						NA	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria						NA	No Criteria			
53	Pentachlorophenol	ug/L	0.6	1	5.55	4.26			8.2	NA	4.26			
54	Phenol	ug/L	0.6	5					4600000	NA	4600000			
55	2,4,6-Trichlorophenol	ug/L	0.6	5					6.5	NA	6.5			
56	Acenaphthene	ug/L	0.6	0.1					2700	NA	2700			
57	Acenaphthylene	ug/L	0.6	No Criteria						NA	No Criteria			
58	Anthracene	ug/L	0.6	0.1					110000	NA	110000			
59	Benzidine	ug/L	0.6						0.00	NA	0.00054			
60	Benzo(a)Anthracene	ug/L	0.6						0.05	NA	0.0490			
61	Benzo(a)Pyrene	ug/L	0.6						0.05	NA	0.0490			
62	Benzo(b)Fluoranthene	ug/L	0.6						0.05	NA	0.0490			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria						NA	No Criteria			
64	Benzo(k)Fluoranthene	ug/L	0.6						0.05	NA	0.0490			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria						NA	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6	1					1.4	NA	1.400			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	5					170000	NA	170000			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	5					5.9	NA	5.9			
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria						NA	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	5					5200	NA	5200			
71	2-Chloronaphthalene	ug/L	0.6	5					4300	NA	4300			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria						NA	No Criteria			
73	Chrysene	ug/L	0.6						0.049	NA	0.0490			
74	Dibenzo(a,h)Anthracene	ug/L	0.6						0.049	NA	0.0490			
75	1,2-Dichlorobenzene	ug/L	0.6	0.5					17000	NA	17000			
76	1,3-Dichlorobenzene	ug/L	0.6	0.5					2600	NA	2600			
77	1,4-Dichlorobenzene	ug/L	0.6	0.5					2600	NA	2600			
78	3,3 Dichlorobenzidine	ug/L	0.6						0.077	NA	0.08			
79	Diethyl Phthalate	ug/L	0.6	5					120000	NA	120000			
80	Dimethyl Phthalate	ug/L	0.6	5					2900000	NA	2900000			
81	Di-n-Butyl Phthalate	ug/L	0.6	5					12000	NA	12000			
82	2,4-Dinitrotoluene	ug/L	0.6	5					9.1	NA	9.10			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria						NA	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria						NA	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6						0.54	NA	0.540			
86	Fluoranthene	ug/L	0.6	0.1					370	NA	370			
87	Fluorene	ug/L	0.6	0.1					14000	NA	14000			
88	Hexachlorobenzene	ug/L	0.6						0.00	NA	0.00077			
89	Hexachlorobutadiene	ug/L	0.6	1					50	NA	50.00			
90	Hexachlorocyclopentadiene	ug/L	0.6	5					17000	NA	17000			
91	Hexachloroethane	ug/L	0.6	1					8.90	NA	8.9			

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)							
		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required
47	2,4-Dimethylphenol	No	No	Y	Y	2		N	No detected value of B, Step 7
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	No	No	Y	Y	5		N	No detected value of B, Step 7
49	2,4-Dinitrophenol	No	No	Y	Y	5		N	No detected value of B, Step 7
50	2-Nitrophenol	No Criteria	No Criteria	Y	Y	5		N	No Criteria
51	4-Nitrophenol	No Criteria	No Criteria	Y	Y	5		N	No Criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria	No Criteria	Y	Y	1		N	No Criteria
53	Pentachlorophenol	No	No	Y	Y	1		N	No detected value of B, Step 7
54	Phenol	No	No	Y	Y	5		N	No detected value of B, Step 7
55	2,4,6-Trichlorophenol	No	No	Y	Y	5		N	No detected value of B, Step 7
56	Acenaphthene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
57	Acenaphthylene	No Criteria	No Criteria	Y	Y	0.1		N	No Criteria
58	Anthracene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
59	Benzidine			Y	Y	5		Y	No detected value of B, Step 7
60	Benzo(a)Anthracene			Y	Y	0.1		Y	No detected value of B, Step 7
61	Benzo(a)Pyrene			Y	Y	0.1		Y	No detected value of B, Step 7
62	Benzo(b)Fluoranthene			Y	Y	0.1		Y	No detected value of B, Step 7
63	Benzo(ghi)Perylene	No Criteria	No Criteria	Y	Y	0.1		N	No Criteria
64	Benzo(k)Fluoranthene			Y	Y	0.1		Y	No detected value of B, Step 7
65	Bis(2-Chloroethoxy)Methane	No Criteria	No Criteria	Y	Y	5		N	No Criteria
66	Bis(2-Chloroethyl)Ether	No	No	Y	Y	1		N	No detected value of B, Step 7
67	Bis(2-Chloroisopropyl)Ether	No	No	Y	Y	5		N	No detected value of B, Step 7
68	Bis(2-Ethylhexyl)Phthalate	No	No	Y	N		4.17		B<=C, Step 7
69	4-Bromophenyl Phenyl Ether	No Criteria	No Criteria	Y	Y	5		N	No Criteria
70	Butylbenzyl Phthalate	No	No	Y	Y	5		N	No detected value of B, Step 7
71	2-Chloronaphthalene	No	No	Y	Y	5		N	No detected value of B, Step 7
72	4-Chlorophenyl Phenyl Ether	No Criteria	No Criteria	Y	Y	5		N	No Criteria
73	Chrysene			Y	Y	0.1		Y	No detected value of B, Step 7
74	Dibenzo(a,h)Anthracene			Y	Y	0.1		Y	No detected value of B, Step 7
75	1,2-Dichlorobenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
76	1,3-Dichlorobenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
77	1,4-Dichlorobenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
78	3,3 Dichlorobenzidine			Y	Y	5		Y	No detected value of B, Step 7
79	Diethyl Phthalate	No	No	Y	Y	5		N	No detected value of B, Step 7
80	Dimethyl Phthalate	No	No	Y	Y	5		N	No detected value of B, Step 7
81	Di-n-Butyl Phthalate	No	No	Y	Y	5		N	No detected value of B, Step 7
82	2,4-Dinitrotoluene	No	No	Y	Y	5		N	No detected value of B, Step 7
83	2,6-Dinitrotoluene	No Criteria	No Criteria	Y	Y	5		N	No Criteria
84	Di-n-Octyl Phthalate	No Criteria	No Criteria	Y	Y	5		N	No Criteria
85	1,2-Diphenylhydrazine			Y	Y	1		Y	No detected value of B, Step 7
86	Fluoranthene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
87	Fluorene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
88	Hexachlorobenzene			Y	Y	1		Y	No detected value of B, Step 7
89	Hexachlorobutadiene	No	No	Y	Y	1		N	No detected value of B, Step 7
90	Hexachlorocyclopentadiene	No	No	Y	Y	5		N	No detected value of B, Step 7
91	Hexachloroethane	No	No	Y	Y	1		N	No detected value of B, Step 7

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters				HUMAN HEALTH CALCULATIONS					
		Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	Organisms only			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier
					AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh			
47	2,4-Dimethylphenol		No	MEC<C & B is ND						
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)		No	MEC<C & B is ND						
49	2,4-Dinitrophenol		No	MEC<C & B is ND						
50	2-Nitrophenol	No Criteria	Uc	No Criteria						
51	4-Nitrophenol	No Criteria	Uc	No Criteria						
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria	Uc	No Criteria						
53	Pentachlorophenol		No	MEC<C & B is ND						
54	Phenol		No	MEC<C & B is ND						
55	2,4,6-Trichlorophenol		No	MEC<C & B is ND						
56	Acenaphthene		No	MEC<C & B is ND						
57	Acenaphthylene	No Criteria	Uc	No Criteria						
58	Anthracene		No	MEC<C & B is ND						
59	Benzidine		No	UD; effluent ND, MDL>C, and B is						
60	Benzo(a)Anthracene		No	UD; effluent ND, MDL>C, and B is						
61	Benzo(a)Pyrene		No	UD; effluent ND, MDL>C, and B is						
62	Benzo(b)Fluoranthene		No	UD; effluent ND, MDL>C, and B is						
63	Benzo(ghi)Perylene	No Criteria	Uc	No Criteria						
64	Benzo(k)Fluoranthene		No	UD; effluent ND, MDL>C, and B is						
65	Bis(2-Chloroethoxy)Methane	No Criteria	Uc	No Criteria						
66	Bis(2-Chloroethyl)Ether		No	MEC<C & B is ND						
67	Bis(2-Chloroisopropyl)Ether		No	MEC<C & B is ND						
68	Bis(2-Ethylhexyl)Phthalate		No	MEC<C & B<=C						
69	4-Bromophenyl Phenyl Ether	No Criteria	Uc	No Criteria						
70	Butylbenzyl Phthalate		No	MEC<C & B is ND						
71	2-Chloronaphthalene		No	MEC<C & B is ND						
72	4-Chlorophenyl Phenyl Ether	No Criteria	Uc	No Criteria						
73	Chrysene		No	UD; effluent ND, MDL>C, and B is						
74	Dibenzo(a,h)Anthracene		No	UD; effluent ND, MDL>C, and B is						
75	1,2-Dichlorobenzene		No	MEC<C & B is ND						
76	1,3-Dichlorobenzene		No	MEC<C & B is ND						
77	1,4-Dichlorobenzene		No	MEC<C & B is ND						
78	3,3 Dichlorobenzidine		No	UD; effluent ND, MDL>C, and B is						
79	Diethyl Phthalate		No	MEC<C & B is ND						
80	Dimethyl Phthalate		No	MEC<C & B is ND						
81	Di-n-Butyl Phthalate		No	MEC<C & B is ND						
82	2,4-Dinitrotoluene		No	MEC<C & B is ND						
83	2,6-Dinitrotoluene	No Criteria	Uc	No Criteria						
84	Di-n-Octyl Phthalate	No Criteria	Uc	No Criteria						
85	1,2-Diphenylhydrazine		No	UD; effluent ND, MDL>C, and B is						
86	Fluoranthene		No	MEC<C & B is ND						
87	Fluorene		No	MEC<C & B is ND						
88	Hexachlorobenzene		No	UD; effluent ND, MDL>C, and B is						
89	Hexachlorobutadiene		No	MEC<C & B is ND						
90	Hexachlorocyclopentadiene		No	MEC<C & B is ND						
91	Hexachloroethane		No	MEC<C & B is ND						

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	AQUATIC LIFE CALCULATIONS						LIMITS		Recommendation	Comment
		Saltwater / Freshwater / Basin Plan						Lowest AMEL	Lowest MDEL		
		LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life				
47	2,4-Dimethylphenol									No Limit	
48	4,6-dinitro-o-resol (aka 2-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									No Limit	
61	Benzo(a)Pyrene									No Limit	
62	Benzo(b)Fluoranthene									No Limit	
63	Benzo(ghi)Perylene									No Limit	
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									No Limit	
69	4-Bromophenyl Phenyl Ether									No Limit	
70	Butylbenzyl Phthalate									No Limit	
71	2-Chloronaphthalene									No Limit	
72	4-Chlorophenyl Phenyl Ether									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	

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)						Lowest C or TMDL	
					Freshwater		Saltwater		Human Health for consumption of:			TMDL
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6							0.049	NA	0.0490
93	Isophorone	ug/L	0.6	1						600	NA	600.0
94	Naphthalene	ug/L	0.6	No Criteria							NA	No Criteria
95	Nitrobenzene	ug/L	0.6	5						1900	NA	1900
96	N-Nitrosodimethylamine	ug/L	0.6	5						8.10	NA	8.10000
97	N-Nitrosodi-n-Propylamine	ug/L	0.6							1.40	NA	1.400
98	N-Nitrosodiphenylamine	ug/L	0.6	1						16	NA	16.0
99	Phenanthrene	ug/L	0.6	No Criteria							NA	No Criteria
100	Pyrene	ug/L	0.6	0.1						11000	NA	11000
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria							NA	No Criteria
102	Aldrin	ug/L	0.6		3.00					0.00014	NA	0.00014
103	alpha-BHC	ug/L	0.6	0.01						0.013	NA	0.0130
104	beta-BHC	ug/L	0.6	0.005						0.046	NA	0.046
105	gamma-BHC	ug/L	0.6	0.02	0.95					0.063	NA	0.063
106	delta-BHC	ug/L	0.6	No Criteria							NA	No Criteria
107	Chlordane	ug/L	0.6		2.4	0.0043				0.00059	NA	0.00059
108	4,4'-DDT	ug/L	0.6		1.1	0.001				0.00059	NA	0.00059
109	4,4'-DDE (linked to DDT)	ug/L	0.6							0.00059	NA	0.00059
110	4,4'-DDD	ug/L	0.6							0.00084	NA	0.00084
111	Dieldrin	ug/L	0.6		0.24	0.056				0.00014	NA	0.00014
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056				240	NA	0.0560
113	beta-Endosulfan	ug/L	0.6	0.01	0.22	0.056				240	NA	0.0560
114	Endosulfan Sulfate	ug/L	0.6	0.05						240	NA	240
115	Endrin	ug/L	0.6	0.01	0.086	0.036				0.81	NA	0.0360
116	Endrin Aldehyde	ug/L	0.6	0.01						0.81	NA	0.81
117	Heptachlor	ug/L	0.6		0.52	0.0038				0.00021	NA	0.00021
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038				0.00011	NA	0.00011
119-125	PCBs sum (2)	ug/L	0.6			0.014				0.00017	NA	0.00017
126	Toxaphene	ug/L	0.6		0.73	0.0002				0.00075	NA	0.0002

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

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)							
		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required
92	Indeno(1,2,3-cd)Pyrene			Y	Y	0.05		Y	No detected value of B, Step 7
93	Isophorone	No	No	Y	Y	1		N	No detected value of B, Step 7
94	Naphthalene	No Criteria	No Criteria	Y	Y	0.1		N	No Criteria
95	Nitrobenzene	No	No	Y	Y	5		N	No detected value of B, Step 7
96	N-Nitrosodimethylamine	No	No	Y	Y	5		N	No detected value of B, Step 7
97	N-Nitrosodi-n-Propylamine			Y	Y	5		Y	No detected value of B, Step 7
98	N-Nitrosodiphenylamine	No	No	Y	Y	1		N	No detected value of B, Step 7
99	Phenanthrene	No Criteria	No Criteria	Y	Y	0.1		N	No Criteria
100	Pyrene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
101	1,2,4-Trichlorobenzene	No Criteria	No Criteria	Y	Y	5		N	No Criteria
102	Aldrin			Y	Y				No detected value of B, Step 7
103	alpha-BHC	No	No	Y	Y				No detected value of B, Step 7
104	beta-BHC	No	No	Y	Y	0.005		N	No detected value of B, Step 7
105	gamma-BHC	No	No	Y	Y	0.02		N	No detected value of B, Step 7
106	delta-BHC	No Criteria	No Criteria	Y	Y	0.005		N	No Criteria
107	Chlordane			Y	Y	0.1		Y	No detected value of B, Step 7
108	4,4'-DDT			Y	Y	0.01		Y	No detected value of B, Step 7
109	4,4'-DDE (linked to DDT)			Y	Y	0.05		Y	No detected value of B, Step 7
110	4,4'-DDD			Y	Y	0.05		Y	No detected value of B, Step 7
111	Dieldrin			Y	Y	0.01		Y	No detected value of B, Step 7
112	alpha-Endosulfan	No	No	Y	Y	0.01		N	No detected value of B, Step 7
113	beta-Endosulfan	No	No	Y	Y	0.01		N	No detected value of B, Step 7
114	Endosulfan Sulfate	No	No	Y	Y	0.05		N	No detected value of B, Step 7
115	Endrin	No	No	Y	Y	0.01		N	No detected value of B, Step 7
116	Endrin Aldehyde	No	No	Y	Y	0.01		N	No detected value of B, Step 7
117	Heptachlor			Y	Y	0.01		Y	No detected value of B, Step 7
118	Heptachlor Epoxide			Y	Y	0.01		Y	No detected value of B, Step 7
119-125	PCBs sum (2)			N					No detected value of B, Step 7
126	Toxaphene			Y	Y	0.5		Y	No detected value of B, Step 7

Notes:

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR Water Q

C = Water Quality Criteria

B = Background receiving water data

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters				HUMAN HEALTH CALCULATIONS					
		Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	Organisms only			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier
					AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh			
92	Indeno(1,2,3-cd)Pyrene		No	UD; effluent ND, MDL>C, and B is						
93	Isophorone		No	MEC<C & B is ND						
94	Naphthalene	No Criteria	Uc	No Criteria						
95	Nitrobenzene		No	MEC<C & B is ND						
96	N-Nitrosodimethylamine		No	MEC<C & B is ND						
97	N-Nitrosodi-n-Propylamine		No	UD; effluent ND, MDL>C, and B is						
98	N-Nitrosodiphenylamine		No	MEC<C & B is ND						
99	Phenanthrene	No Criteria	Uc	No Criteria						
100	Pyrene		No	MEC<C & B is ND						
101	1,2,4-Trichlorobenzene	No Criteria	Uc	No Criteria						
102	Aldrin		No	UD; effluent ND, MDL>C, and B is						
103	alpha-BHC		No	MEC<C & B is ND						
104	beta-BHC		No	MEC<C & B is ND						
105	gamma-BHC		No	MEC<C & B is ND						
106	delta-BHC	No Criteria	Uc	No Criteria						
107	Chlordane		No	UD; effluent ND, MDL>C, and B is						
108	4,4'-DDT		No	UD; effluent ND, MDL>C, and B is						
109	4,4'-DDE (linked to DDT)		No	UD; effluent ND, MDL>C, and B is						
110	4,4'-DDD		No	UD; effluent ND, MDL>C, and B is						
111	Dieldrin		No	UD; effluent ND, MDL>C, and B is						
112	alpha-Endosulfan		No	MEC<C & B is ND						
113	beta-Endolsulfan		No	MEC<C & B is ND						
114	Endosulfan Sulfate		No	MEC<C & B is ND						
115	Endrin		No	MEC<C & B is ND						
116	Endrin Aldehyde		No	MEC<C & B is ND						
117	Heptachlor		No	UD; effluent ND, MDL>C, and B is						
118	Heptachlor Epoxide		No	UD; effluent ND, MDL>C, and B is						
119-125	PCBs sum (2)		No	UD;Effluent ND,MDL>C & No B						
126	Toxaphene		No	UD; effluent ND, MDL>C, and B is						

Notes:

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR Water Q

C = Water Quality Criteria

B = Background receiving water data

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Dry-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	AQUATIC LIFE CALCULATIONS						LIMITS		Recommendation	Comment
		Saltwater / Freshwater / Basin Plan						Lowest AMEL	Lowest MDEL		
		LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life				
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-Endosulfan									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 data
- Uc = Undetermined due to lack of CTR Water Q
- C = Water Quality Criteria
- B = Background receiving water data

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)						Lowest C or TMDL	
					Freshwater		Saltwater		Human Health for consumption of:			TMDL
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
1	Antimony	ug/L	0.6	5						4300	NA	4300.00
2	Arsenic	ug/L	0.6	10	340.00	150.00					NA	150.00
3	Beryllium	ug/L	0.6	No Criteria						Narrative	NA	No Criteria
4	Cadmium	ug/L	0.6	0.5	9.12	4.02				Narrative	3.1	3.10
5a	Chromium (III)		0.6	10	2893.10	344.84				Narrative	NA	344.84
5b	Chromium (VI)	ug/L	0.6	5	16.29	11.43				Narrative	NA	11.43
6	Copper	ug/L	0.539	17	25.18	15.89					17	17.00
7	Lead	ug/L	0.6	1.67	180.51	7.03				Narrative	62	62.00
8	Mercury	ug/L	0.6		Reserved	Reserved				0.051	NA	0.051
9	Nickel	ug/L	0.6	11	794.93	88.38				4600	NA	88.38
10	Selenium	ug/L	0.6	2		5.00				Narrative	NA	5.00
11	Silver	ug/L	0.6	0.25	11.86						NA	11.86
12	Thallium	ug/L	0.6	1						6.30	NA	6.30
13	Zinc	ug/L	0.749	429	203.17	203.17					159	159.00
14	Cyanide	ug/L	0.6		22.00	5.20				220000	NA	5.20
15	Asbestos	Fibers/L	0.6	No Criteria							NA	No Criteria
16	2,3,7,8 TCDD	ug/L	0.6							0.00000014	NA	0.00000014
17	Acrolein	ug/L	0.6	5						780	NA	780
18	Acrylonitrile	ug/L	0.6							0.66	NA	0.660
19	Benzene	ug/L	0.6	0.5						71	NA	71.0
20	Bromoform	ug/L	0.6	16.6						360	NA	360.0
21	Carbon Tetrachloride	ug/L	0.6	0.5						4.40	NA	4.40
22	Chlorobenzene	ug/L	0.6	0.5						21000	NA	21000
23	Chlorodibromomethane	ug/L	0.6	19.9						34	NA	34.00
24	Chloroethane	ug/L	0.6	No Criteria							NA	No Criteria
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							NA	No Criteria
26	Chloroform	ug/L	0.6	No Criteria							NA	No Criteria
27	Dichlorobromomethane	ug/L	0.6	6.31						46	NA	46.00
28	1,1-Dichloroethane	ug/L	0.6	No Criteria							NA	No Criteria
29	1,2-Dichloroethane	ug/L	0.6	0.5						99	NA	99.00
30	1,1-Dichloroethylene	ug/L	0.6	0.5						3.20	NA	3.200
31	1,2-Dichloropropane	ug/L	0.6	0.5						39.00	NA	39.00
32	1,3-Dichloropropylene	ug/L	0.6	0.5						1700	NA	1700
33	Ethylbenzene	ug/L	0.6	32.5						29000	NA	29000
34	Methyl Bromide	ug/L	0.6	1.5						4000	NA	4000
35	Methyl Chloride	ug/L	0.6	No Criteria							NA	No Criteria
36	Methylene Chloride	ug/L	0.6	0.5						1600	NA	1600.0
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5						11	NA	11.00
38	Tetrachloroethylene	ug/L	0.6	0.5						8.85	NA	8.9
39	Toluene	ug/L	0.6	3.68						200000	NA	200000
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5						140000	NA	140000
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria							NA	No Criteria
42	1,1,2-Trichloroethane	ug/L	0.6	0.5						42	NA	42.0
43	Trichloroethylene	ug/L	0.6	0.5						81	NA	81.0
44	Vinyl Chloride	ug/L	0.6	0.5						525	NA	525

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)							
		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
1	Antimony	No	No	Y	Y	5		N	No detected value of B, Step 7
2	Arsenic	No	No	Y	Y	10		N	No detected value of B, Step 7
3	Beryllium	No Criteria	No Criteria	Y	Y	0.5		N	No Criteria
4	Cadmium	No	No	Y	Y	0.5		N	No detected value of B, Step 7
5a	Chromium (III)	No	No	Y	Y	10		N	No detected value of B, Step 7
5b	Chromium (VI)	No	No	Y	Y	2		N	No detected value of B, Step 7
6	Copper	Yes	Yes	Y	N		50		Limit required, B>C & pollutant detected in effluent
7	Lead	No	No	Y	Y	0.5		N	No detected value of B, Step 7
8	Mercury			Y	Y	0.2		Y	No detected value of B, Step 7
9	Nickel	No	No	Y	Y	1		N	No detected value of B, Step 7
10	Selenium	No	No	Y	Y	2		N	No detected value of B, Step 7
11	Silver	No	No	Y	Y	0.25		N	No detected value of B, Step 7
12	Thallium	No	No	Y	Y	1		N	No detected value of B, Step 7
13	Zinc	Yes	Yes	Y	N		466		Limit required, B>C & pollutant detected in effluent
14	Cyanide			Y	Y	10		Y	No detected value of B, Step 7
15	Asbestos	No Criteria	No Criteria	N					No Criteria
16	2,3,7,8 TCDD			N					No detected value of B, Step 7
17	Acrolein	No	No	Y	Y	5		N	No detected value of B, Step 7
18	Acrylonitrile			Y	Y	2		Y	No detected value of B, Step 7
19	Benzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
20	Bromoform	No	No	Y	Y	0.5		N	No detected value of B, Step 7
21	Carbon Tetrachloride	No	No	Y	Y	0.5		N	No detected value of B, Step 7
22	Chlorobenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
23	Chlorodibromomethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
24	Chloroethane	No Criteria	No Criteria	Y	Y	1.5		N	No Criteria
25	2-Chloroethylvinyl ether	No Criteria	No Criteria	Y	Y	1		N	No Criteria
26	Chloroform	No Criteria	No Criteria	Y	Y				No Criteria
27	Dichlorobromomethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
28	1,1-Dichloroethane	No Criteria	No Criteria	Y	Y	0.5		N	No Criteria
29	1,2-Dichloroethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
30	1,1-Dichloroethylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
31	1,2-Dichloropropane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
32	1,3-Dichloropropylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
33	Ethylbenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
34	Methyl Bromide	No	No	Y	Y	1.5		N	No detected value of B, Step 7
35	Methyl Chloride	No Criteria	No Criteria	Y	Y	0.5		N	No Criteria
36	Methylene Chloride	No	No	Y	Y	0.5		N	No detected value of B, Step 7
37	1,1,2,2-Tetrachloroethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
38	Tetrachloroethylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
39	Toluene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
40	1,2-Trans-Dichloroethylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
41	1,1,1-Trichloroethane	No Criteria	No Criteria	Y	Y	0.5		N	No Criteria
42	1,1,2-Trichloroethane	No	No	Y	Y	0.5		N	No detected value of B, Step 7
43	Trichloroethylene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
44	Vinyl Chloride	No	No	Y	Y	0.5		N	No detected value of B, Step 7

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS					
					Organisms only					
					AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier
1	Antimony		No	MEC<C & B is ND						
2	Arsenic		No	MEC<C & B is ND						
3	Beryllium	No Criteria	Uc	No Criteria						
4	Cadmium	LA River TMDL	Yes	yes, TMDL		2.01		0.321	1.00	0.527
5a	Chromium (III)		No	MEC<C & B is ND						
5b	Chromium (VI)		No	MEC<C & B is ND						
6	Copper	LA River TMDL	Yes	yes, TMDL		1.91		0.351	5.97	0.559
7	Lead	LA River TMDL	Yes	yes, TMDL		2.01		0.321	19.91	0.527
8	Mercury		No	UD; effluent ND, MDL>C, and B						
9	Nickel		No	MEC<C & B is ND						
10	Selenium		No	MEC<C & B is ND						
11	Silver		No	MEC<C & B is ND						
12	Thallium		No	MEC<C & B is ND						
13	Zinc	LA River TMDL	Yes	yes, TMDL		2.22		0.264	42.05	0.460
14	Cyanide		No	UD; effluent ND, MDL>C, and B						
15	Asbestos	No Criteria	Uc	No Criteria						
16	2,3,7,8 TCDD		Ud	No effluent data & no B						
17	Acrolein		No	MEC<C & B is ND						
18	Acrylonitrile		No	UD; effluent ND, MDL>C, and B						
19	Benzene		No	MEC<C & B is ND						
20	Bromoform		No	MEC<C & B is ND						
21	Carbon Tetrachloride		No	MEC<C & B is ND						
22	Chlorobenzene		No	MEC<C & B is ND						
23	Chlorodibromomethane		No	MEC<C & B is ND						
24	Chloroethane	No Criteria	Uc	No Criteria						
25	2-Chloroethylvinyl ether	No Criteria	Uc	No Criteria						
26	Chloroform	No Criteria	Uc	No Criteria						
27	Dichlorobromomethane		No	MEC<C & B is ND						
28	1,1-Dichloroethane	No Criteria	Uc	No Criteria						
29	1,2-Dichloroethane		No	MEC<C & B is ND						
30	1,1-Dichloroethylene		No	MEC<C & B is ND						
31	1,2-Dichloropropane		No	MEC<C & B is ND						
32	1,3-Dichloropropylene		No	MEC<C & B is ND						
33	Ethylbenzene		No	MEC<C & B is ND						
34	Methyl Bromide		No	MEC<C & B is ND						
35	Methyl Chloride	No Criteria	Uc	No Criteria						
36	Methylene Chloride		No	MEC<C & B is ND						
37	1,1,2,2-Tetrachloroethane		No	MEC<C & B is ND						
38	Tetrachloroethylene		No	MEC<C & B is ND						
39	Toluene		No	MEC<C & B is ND						
40	1,2-Trans-Dichloroethylene		No	MEC<C & B is ND						
41	1,1,1-Trichloroethane	No Criteria	Uc	No Criteria						
42	1,1,2-Trichloroethane		No	MEC<C & B is ND						
43	Trichloroethylene		No	MEC<C & B is ND						
44	Vinyl Chloride		No	MEC<C & B is ND						

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	AQUATIC LIFE CALCULATIONS						LIMITS		Recommendation	Comment
		Saltwater / Freshwater / Basin Plan						Lowest AMEL	Lowest MDEL		
		LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life				
1	Antimony									No Limit	
2	Arsenic									No Limit	
3	Beryllium									No Limit	
4	Cadmium		1.00	1.55	1.55	3.11	3.1	1.5	3.1	Limit based on TMDL	Wet-Weather Limit
5a	Chromium (III)									No Limit	
5b	Chromium (VI)									No Limit	
6	Copper		5.97	1.49	8.90	2.85	17	8.9	17	Limit based on TMDL	Wet-Weather Limit
7	Lead		19.91	1.55	30.90	3.11	62	31	62	Limit based on TMDL	Wet-Weather Limit
8	Mercury									No Limit	
9	Nickel									No Limit	
10	Selenium									No Limit	
11	Silver									No Limit	
12	Thallium									No Limit	
13	Zinc		42.05	1.70	71.48	3.78	159	71	159	Limit based on TMDL	Wet-Weather Limit
14	Cyanide									No Limit	
15	Asbestos									No Limit	
16	2,3,7,8 TCDD									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	

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)				Human Health for consumption of:	TMDL	Lowest C or TMDL			
					Freshwater		Saltwater					Water & organisms	Organisms only	Wet-Weather WLAs
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot						
45	2-Chlorophenol	ug/L	0.6	5					400	NA	400			
46	2,4-Dichlorophenol	ug/L	0.6	5					790	NA	790			
47	2,4-Dimethylphenol	ug/L	0.6	2					2300	NA	2300			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5					765	NA	765.0			
49	2,4-Dinitrophenol	ug/L	0.6	5					14000	NA	14000			
50	2-Nitrophenol	ug/L	0.6	No Criteria						NA	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria						NA	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria						NA	No Criteria			
53	Pentachlorophenol	ug/L	0.6	1	5.55	4.26			8.2	NA	4.26			
54	Phenol	ug/L	0.6	5					4600000	NA	4600000			
55	2,4,6-Trichlorophenol	ug/L	0.6	5					6.5	NA	6.5			
56	Acenaphthene	ug/L	0.6	0.1					2700	NA	2700			
57	Acenaphthylene	ug/L	0.6	No Criteria						NA	No Criteria			
58	Anthracene	ug/L	0.6	0.1					110000	NA	110000			
59	Benzidine	ug/L	0.6						0.00	NA	0.00054			
60	Benzo(a)Anthracene	ug/L	0.6						0.05	NA	0.0490			
61	Benzo(a)Pyrene	ug/L	0.6						0.05	NA	0.0490			
62	Benzo(b)Fluoranthene	ug/L	0.6						0.05	NA	0.0490			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria						NA	No Criteria			
64	Benzo(k)Fluoranthene	ug/L	0.6						0.05	NA	0.0490			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria						NA	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6	1					1.4	NA	1.400			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	5					170000	NA	170000			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	5					5.9	NA	5.9			
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria						NA	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	5					5200	NA	5200			
71	2-Chloronaphthalene	ug/L	0.6	5					4300	NA	4300			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria						NA	No Criteria			
73	Chrysene	ug/L	0.6						0.049	NA	0.0490			
74	Dibenzo(a,h)Anthracene	ug/L	0.6						0.049	NA	0.0490			
75	1,2-Dichlorobenzene	ug/L	0.6	0.5					17000	NA	17000			
76	1,3-Dichlorobenzene	ug/L	0.6	0.5					2600	NA	2600			
77	1,4-Dichlorobenzene	ug/L	0.6	0.5					2600	NA	2600			
78	3,3 Dichlorobenzidine	ug/L	0.6						0.077	NA	0.08			
79	Diethyl Phthalate	ug/L	0.6	5					120000	NA	120000			
80	Dimethyl Phthalate	ug/L	0.6	5					2900000	NA	2900000			
81	Di-n-Butyl Phthalate	ug/L	0.6	5					12000	NA	12000			
82	2,4-Dinitrotoluene	ug/L	0.6	5					9.1	NA	9.10			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria						NA	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria						NA	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6						0.54	NA	0.540			
86	Fluoranthene	ug/L	0.6	0.1					370	NA	370			
87	Fluorene	ug/L	0.6	0.1					14000	NA	14000			
88	Hexachlorobenzene	ug/L	0.6						0.00	NA	0.00077			
89	Hexachlorobutadiene	ug/L	0.6	1					50	NA	50.00			

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)							
		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
45	2-Chlorophenol	No	No	Y	Y	5		N	No detected value of B, Step 7
46	2,4-Dichlorophenol	No	No	Y	Y	5		N	No detected value of B, Step 7
47	2,4-Dimethylphenol	No	No	Y	Y	2		N	No detected value of B, Step 7
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	No	No	Y	Y	5		N	No detected value of B, Step 7
49	2,4-Dinitrophenol	No	No	Y	Y	5		N	No detected value of B, Step 7
50	2-Nitrophenol	No Criteria	No Criteria	Y	Y	5		N	No Criteria
51	4-Nitrophenol	No Criteria	No Criteria	Y	Y	5		N	No Criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria	No Criteria	Y	Y	1		N	No Criteria
53	Pentachlorophenol	No	No	Y	Y	1		N	No detected value of B, Step 7
54	Phenol	No	No	Y	Y	5		N	No detected value of B, Step 7
55	2,4,6-Trichlorophenol	No	No	Y	Y	5		N	No detected value of B, Step 7
56	Acenaphthene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
57	Acenaphthylene	No Criteria	No Criteria	Y	Y	0.1		N	No Criteria
58	Anthracene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
59	Benzidine			Y	Y	5		Y	No detected value of B, Step 7
60	Benzo(a)Anthracene			Y	Y	0.1		Y	No detected value of B, Step 7
61	Benzo(a)Pyrene			Y	Y	0.1		Y	No detected value of B, Step 7
62	Benzo(b)Fluoranthene			Y	Y	0.1		Y	No detected value of B, Step 7
63	Benzo(ghi)Perylene	No Criteria	No Criteria	Y	Y	0.1		N	No Criteria
64	Benzo(k)Fluoranthene			Y	Y	0.1		Y	No detected value of B, Step 7
65	Bis(2-Chloroethoxy)Methane	No Criteria	No Criteria	Y	Y	5		N	No Criteria
66	Bis(2-Chloroethyl)Ether	No	No	Y	Y	1		N	No detected value of B, Step 7
67	Bis(2-Chloroisopropyl)Ether	No	No	Y	Y	5		N	No detected value of B, Step 7
68	Bis(2-Ethylhexyl)Phthalate	No	No	Y	N		4.17		B<=C, Step 7
69	4-Bromophenyl Phenyl Ether	No Criteria	No Criteria	Y	Y	5		N	No Criteria
70	Butylbenzyl Phthalate	No	No	Y	Y	5		N	No detected value of B, Step 7
71	2-Chloronaphthalene	No	No	Y	Y	5		N	No detected value of B, Step 7
72	4-Chlorophenyl Phenyl Ether	No Criteria	No Criteria	Y	Y	5		N	No Criteria
73	Chrysene			Y	Y	0.1		Y	No detected value of B, Step 7
74	Dibenzo(a,h)Anthracene			Y	Y	0.1		Y	No detected value of B, Step 7
75	1,2-Dichlorobenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
76	1,3-Dichlorobenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
77	1,4-Dichlorobenzene	No	No	Y	Y	0.5		N	No detected value of B, Step 7
78	3,3 Dichlorobenzidine			Y	Y	5		Y	No detected value of B, Step 7
79	Diethyl Phthalate	No	No	Y	Y	5		N	No detected value of B, Step 7
80	Dimethyl Phthalate	No	No	Y	Y	5		N	No detected value of B, Step 7
81	Di-n-Butyl Phthalate	No	No	Y	Y	5		N	No detected value of B, Step 7
82	2,4-Dinitrotoluene	No	No	Y	Y	5		N	No detected value of B, Step 7
83	2,6-Dinitrotoluene	No Criteria	No Criteria	Y	Y	5		N	No Criteria
84	Di-n-Octyl Phthalate	No Criteria	No Criteria	Y	Y	5		N	No Criteria
85	1,2-Diphenylhydrazine			Y	Y	1		Y	No detected value of B, Step 7
86	Fluoranthene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
87	Fluorene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
88	Hexachlorobenzene			Y	Y	1		Y	No detected value of B, Step 7
89	Hexachlorobutadiene	No	No	Y	Y	1		N	No detected value of B, Step 7

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters				HUMAN HEALTH CALCULATIONS					
		Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	Organisms only			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier
					AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh			
45	2-Chlorophenol		No	MEC<C & B is ND						
46	2,4-Dichlorophenol		No	MEC<C & B is ND						
47	2,4-Dimethylphenol		No	MEC<C & B is ND						
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)		No	MEC<C & B is ND						
49	2,4-Dinitrophenol		No	MEC<C & B is ND						
50	2-Nitrophenol	No Criteria	Uc	No Criteria						
51	4-Nitrophenol	No Criteria	Uc	No Criteria						
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria	Uc	No Criteria						
53	Pentachlorophenol		No	MEC<C & B is ND						
54	Phenol		No	MEC<C & B is ND						
55	2,4,6-Trichlorophenol		No	MEC<C & B is ND						
56	Acenaphthene		No	MEC<C & B is ND						
57	Acenaphthylene	No Criteria	Uc	No Criteria						
58	Anthracene		No	MEC<C & B is ND						
59	Benzidine		No	UD; effluent ND, MDL>C, and B						
60	Benzo(a)Anthracene		No	UD; effluent ND, MDL>C, and B						
61	Benzo(a)Pyrene		No	UD; effluent ND, MDL>C, and B						
62	Benzo(b)Fluoranthene		No	UD; effluent ND, MDL>C, and B						
63	Benzo(ghi)Perylene	No Criteria	Uc	No Criteria						
64	Benzo(k)Fluoranthene		No	UD; effluent ND, MDL>C, and B						
65	Bis(2-Chloroethoxy)Methane	No Criteria	Uc	No Criteria						
66	Bis(2-Chloroethyl)Ether		No	MEC<C & B is ND						
67	Bis(2-Chloroisopropyl)Ether		No	MEC<C & B is ND						
68	Bis(2-Ethylhexyl)Phthalate		No	MEC<C & B<=C						
69	4-Bromophenyl Phenyl Ether	No Criteria	Uc	No Criteria						
70	Butylbenzyl Phthalate		No	MEC<C & B is ND						
71	2-Chloronaphthalene		No	MEC<C & B is ND						
72	4-Chlorophenyl Phenyl Ether	No Criteria	Uc	No Criteria						
73	Chrysene		No	UD; effluent ND, MDL>C, and B						
74	Dibenzo(a,h)Anthracene		No	UD; effluent ND, MDL>C, and B						
75	1,2-Dichlorobenzene		No	MEC<C & B is ND						
76	1,3-Dichlorobenzene		No	MEC<C & B is ND						
77	1,4-Dichlorobenzene		No	MEC<C & B is ND						
78	3,3 Dichlorobenzidine		No	UD; effluent ND, MDL>C, and B						
79	Diethyl Phthalate		No	MEC<C & B is ND						
80	Dimethyl Phthalate		No	MEC<C & B is ND						
81	Di-n-Butyl Phthalate		No	MEC<C & B is ND						
82	2,4-Dinitrotoluene		No	MEC<C & B is ND						
83	2,6-Dinitrotoluene	No Criteria	Uc	No Criteria						
84	Di-n-Octyl Phthalate	No Criteria	Uc	No Criteria						
85	1,2-Diphenylhydrazine		No	UD; effluent ND, MDL>C, and B						
86	Fluoranthene		No	MEC<C & B is ND						
87	Fluorene		No	MEC<C & B is ND						
88	Hexachlorobenzene		No	UD; effluent ND, MDL>C, and B						
89	Hexachlorobutadiene		No	MEC<C & B is ND						

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	AQUATIC LIFE CALCULATIONS						LIMITS		Recommendation	Comment
		Saltwater / Freshwater / Basin Plan						Lowest AMEL	Lowest MDEL		
		LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life				
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									No Limit	
61	Benzo(a)Pyrene									No Limit	
62	Benzo(b)Fluoranthene									No Limit	
63	Benzo(ghi)Perylene									No Limit	
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									No Limit	
69	4-Bromophenyl Phenyl Ether									No Limit	
70	Butylbenzyl Phthalate									No Limit	
71	2-Chloronaphthalene									No Limit	
72	4-Chlorophenyl Phenyl Ether									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	

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)						Lowest C or TMDL	
					Freshwater		Saltwater		Human Health for consumption of:			TMDL
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		Wet-Weather WLAs
90	Hexachlorocyclopentadiene	ug/L	0.6	5						17000	NA	17000
91	Hexachloroethane	ug/L	0.6	1						8.90	NA	8.9
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6							0.049	NA	0.0490
93	Isophorone	ug/L	0.6	1						600	NA	600.0
94	Naphthalene	ug/L	0.6	No Criteria							NA	No Criteria
95	Nitrobenzene	ug/L	0.6	5						1900	NA	1900
96	N-Nitrosodimethylamine	ug/L	0.6	5						8.10	NA	8.10000
97	N-Nitrosodi-n-Propylamine	ug/L	0.6							1.40	NA	1.400
98	N-Nitrosodiphenylamine	ug/L	0.6	1						16	NA	16.0
99	Phenanthrene	ug/L	0.6	No Criteria							NA	No Criteria
100	Pyrene	ug/L	0.6	0.1						11000	NA	11000
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria							NA	No Criteria
102	Aldrin	ug/L	0.6		3.00					0.00014	NA	0.00014
103	alpha-BHC	ug/L	0.6	0.01						0.013	NA	0.0130
104	beta-BHC	ug/L	0.6	0.005						0.046	NA	0.046
105	gamma-BHC	ug/L	0.6	0.02	0.95					0.063	NA	0.063
106	delta-BHC	ug/L	0.6	No Criteria							NA	No Criteria
107	Chlordane	ug/L	0.6		2.4	0.0043				0.00059	NA	0.00059
108	4,4'-DDT	ug/L	0.6		1.1	0.001				0.00059	NA	0.00059
109	4,4'-DDE (linked to DDT)	ug/L	0.6							0.00059	NA	0.00059
110	4,4'-DDD	ug/L	0.6							0.00084	NA	0.00084
111	Dieldrin	ug/L	0.6		0.24	0.056				0.00014	NA	0.00014
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056				240	NA	0.0560
113	beta-Endosulfan	ug/L	0.6	0.01	0.22	0.056				240	NA	0.0560
114	Endosulfan Sulfate	ug/L	0.6	0.05						240	NA	240
115	Endrin	ug/L	0.6	0.01	0.086	0.036				0.81	NA	0.0360
116	Endrin Aldehyde	ug/L	0.6	0.01						0.81	NA	0.81
117	Heptachlor	ug/L	0.6		0.52	0.0038				0.00021	NA	0.00021
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038				0.00011	NA	0.00011
119-125	PCBs sum (2)	ug/L	0.6			0.014				0.00017	NA	0.00017
126	Toxaphene	ug/L	0.6		0.73	0.0002				0.00075	NA	0.0002

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

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)							
		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
90	Hexachlorocyclopentadiene	No	No	Y	Y	5		N	No detected value of B, Step 7
91	Hexachloroethane	No	No	Y	Y	1		N	No detected value of B, Step 7
92	Indeno(1,2,3-cd)Pyrene			Y	Y	0.05		Y	No detected value of B, Step 7
93	Isophorone	No	No	Y	Y	1		N	No detected value of B, Step 7
94	Naphthalene	No Criteria	No Criteria	Y	Y	0.1		N	No Criteria
95	Nitrobenzene	No	No	Y	Y	5		N	No detected value of B, Step 7
96	N-Nitrosodimethylamine	No	No	Y	Y	5		N	No detected value of B, Step 7
97	N-Nitrosodi-n-Propylamine			Y	Y	5		Y	No detected value of B, Step 7
98	N-Nitrosodiphenylamine	No	No	Y	Y	1		N	No detected value of B, Step 7
99	Phenanthrene	No Criteria	No Criteria	Y	Y	0.1		N	No Criteria
100	Pyrene	No	No	Y	Y	0.1		N	No detected value of B, Step 7
101	1,2,4-Trichlorobenzene	No Criteria	No Criteria	Y	Y	5		N	No Criteria
102	Aldrin			Y	Y				No detected value of B, Step 7
103	alpha-BHC	No	No	Y	Y				No detected value of B, Step 7
104	beta-BHC	No	No	Y	Y	0.005		N	No detected value of B, Step 7
105	gamma-BHC	No	No	Y	Y	0.02		N	No detected value of B, Step 7
106	delta-BHC	No Criteria	No Criteria	Y	Y	0.005		N	No Criteria
107	Chlordane			Y	Y	0.1		Y	No detected value of B, Step 7
108	4,4'-DDT			Y	Y	0.01		Y	No detected value of B, Step 7
109	4,4'-DDE (linked to DDT)			Y	Y	0.05		Y	No detected value of B, Step 7
110	4,4'-DDD			Y	Y	0.05		Y	No detected value of B, Step 7
111	Dieldrin			Y	Y	0.01		Y	No detected value of B, Step 7
112	alpha-Endosulfan	No	No	Y	Y	0.01		N	No detected value of B, Step 7
113	beta-Endosulfan	No	No	Y	Y	0.01		N	No detected value of B, Step 7
114	Endosulfan Sulfate	No	No	Y	Y	0.05		N	No detected value of B, Step 7
115	Endrin	No	No	Y	Y	0.01		N	No detected value of B, Step 7
116	Endrin Aldehyde	No	No	Y	Y	0.01		N	No detected value of B, Step 7
117	Heptachlor			Y	Y	0.01		Y	No detected value of B, Step 7
118	Heptachlor Epoxide			Y	Y	0.01		Y	No detected value of B, Step 7
119-125	PCBs sum (2)			N					No detected value of B, Step 7
126	Toxaphene			Y	Y	0.5		Y	No detected value of B, Step 7

Notes:
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**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS					
					Organisms only			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier
					AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh			
90	Hexachlorocyclopentadiene		No	MEC<C & B is ND						
91	Hexachloroethane		No	MEC<C & B is ND						
92	Indeno(1,2,3-cd)Pyrene		No	UD; effluent ND, MDL>C, and B						
93	Isophorone		No	MEC<C & B is ND						
94	Naphthalene	No Criteria	Uc	No Criteria						
95	Nitrobenzene		No	MEC<C & B is ND						
96	N-Nitrosodimethylamine		No	MEC<C & B is ND						
97	N-Nitrosodi-n-Propylamine		No	UD; effluent ND, MDL>C, and B						
98	N-Nitrosodiphenylamine		No	MEC<C & B is ND						
99	Phenanthrene	No Criteria	Uc	No Criteria						
100	Pyrene		No	MEC<C & B is ND						
101	1,2,4-Trichlorobenzene	No Criteria	Uc	No Criteria						
102	Aldrin		No	UD; effluent ND, MDL>C, and B						
103	alpha-BHC		No	MEC<C & B is ND						
104	beta-BHC		No	MEC<C & B is ND						
105	gamma-BHC		No	MEC<C & B is ND						
106	delta-BHC	No Criteria	Uc	No Criteria						
107	Chlordane		No	UD; effluent ND, MDL>C, and B						
108	4,4'-DDT		No	UD; effluent ND, MDL>C, and B						
109	4,4'-DDE (linked to DDT)		No	UD; effluent ND, MDL>C, and B						
110	4,4'-DDD		No	UD; effluent ND, MDL>C, and B						
111	Dieldrin		No	UD; effluent ND, MDL>C, and B						
112	alpha-Endosulfan		No	MEC<C & B is ND						
113	beta-Endosulfan		No	MEC<C & B is ND						
114	Endosulfan Sulfate		No	MEC<C & B is ND						
115	Endrin		No	MEC<C & B is ND						
116	Endrin Aldehyde		No	MEC<C & B is ND						
117	Heptachlor		No	UD; effluent ND, MDL>C, and B						
118	Heptachlor Epoxide		No	UD; effluent ND, MDL>C, and B						
119-125	PCBs sum (2)		No	UD;Effluent ND,MDL>C & No B						
126	Toxaphene		No	UD; effluent ND, MDL>C, and B						

Notes:
 Ud = Undetermined due to lack of data
 Uc = Undetermined due to lack of CTR Water Q
 C = Water Quality Criteria
 B = Background receiving water data

**Attachment J - Summary of Reasonable Potential Analysis and Calculation of Wet-Weather Effluent Limitations for Metals Based on TMDL (Per Sections 1.3 and 1.4 of SIP)
Hexion Specialty Chemicals - Lynwood Facility**

CTR#	Parameters	AQUATIC LIFE CALCULATIONS						LIMITS		Recommendation	Comment
		Saltwater / Freshwater / Basin Plan						Lowest AMEL	Lowest MDEL		
		LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life				
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-Endosulfan									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 data
- Uc = Undetermined due to lack of CTR Water Q
- C = Water Quality Criteria
- B = Background receiving water data