February 15, 2018

Mr. John Landgard, EH&S Manager
Sentinel Peak Resources California, LLC
Inglewood Oil Field
5640 South Fairfax Avenue
Los Angeles, CA 90056

Dear Mr. Landgard:

TRANSMITTAL OF WASTE DISCHARGE REQUIREMENTS (WDRs) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND TIME SCHEDULE ORDER – SENTINEL PEAK RESOURCES CALIFORNIA, LLC., INGLEWOOD OIL FIELD, LOS ANGELES, CALIFORNIA (NPDES NO. CA0057827, CI-6240)

On December 1, 2017, we transmitted you the tentative National Pollutant Discharge Elimination System (NPDES) Permit and the tentative Time Schedule Order (TSO) for the Inglewood Oil Field. After considering your comments submitted on January 5, 2018, we transmitted you the Response to Comments on January 29, 2018.

Pursuant to Division 7 of the California Water Code, this Regional Water Board at a public hearing held on February 8, 2018, reviewed the requirements in the tentative permit and the tentative TSO, considered all factors in the case, and adopted Order No. R4-2018-0020 for your waste discharge and Time Schedule Order No. R4-2018-0021. Order R4-2018-0020 serves as an NPDES permit, and it expires on March 31, 2023. Section 13376 of the California Water Code requires that an application/Report of Waste Discharge for a new permit must be filed at least 180 days before the expiration date.

Please note the following changes to the tentative requirements that were made by the Board during the hearing:

- The addition of Item iv in Section VI.C.3.a of the Order (page 20): The Discharger is required to submit a report to the Regional Board within 12 months of the effective date of this Order that analyzes the feasibility of implementing additional stormwater storage capacity to handle high-intensity storm events.

You are required to implement the Monitoring and Reporting Program (MRP) on the effective date (April 1, 2018) of Order No. R4-2018-0020. Your first quarterly monitoring report for the period of April 1, 2018 through June 30, 2018 is due by August 15, 2018. The semiannual progress report required by the TSO is also due by August 15, 2018.

Please continue to electronically submit Self-Monitoring Reports (SMRs) and the TSO semiannual progress reports using the State Water Resource Control Board's California Integrated Water Quality System (CIWQS) Program web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS web site will provide additional information for SMR and the progress report submittal in the event there is a planned service interruption for electronic submittal. Please do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

Please convert all of the regulatory documents, submissions and correspondence that you would normally submit to us as hard copies to a searchable Portable Document Format (PDF). Please reference Inglewood Oil Field, NPDES No. CA0057827 and Compliance File CI-6240 on the documents. Documents that are less than 10 megabytes (MB) should be emailed to losangeles@waterboards.ca.gov with a copy to JauRen.Chen@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed above. If you need additional information regarding electronic submittal of documents please visit the Regional Water Board's website listed above and navigate to Paperless Office.

If you have any questions, please contact Jau Ren Chen at (213) 576-6656.

Sincerely,

Cassandra Owens, Chief
Industrial Permitting Unit

Enclosures

MAILING LIST (VIA EMAIL ONLY)

David Smith, Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Robyn Stuber, Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
NPDES Wastewater Unit, State Water Resources Control Board, Division of Water Quality
Kenneth Wong, U.S Army Corps of Engineers
Bryant Chesney, NOAA, National Marine Fisheries Service
Jeff Phillips, Department of Interior, U.S. Fish and Wildlife Service
William Paznokas, Department of Fish and Game, Region 5
Daniel Dudak, California Department of Conservation, Division of Oil, Gas, and Geothermal Resources
Tim Smith, Los Angeles County, Department of Public Works, Waste Management Division
Bellete Yohannes, City of Los Angeles, Bureau of Sanitation, Industrial Waste Management
Angelo Bellomo, Los Angeles County, Department of Health Services
Sarah Sikich, Heal the Bay
Bruce Reznik, Los Angeles Waterkeeper
Corinne Bell, Natural Resources Defense Council
Jason Weiner, Ventura Coastkeeper

MAILING LIST (Continued)

Karly Katona, County of Los Angeles
Emily Duchon, ALTA Planning + Design
Randy Anderson, ALTA Planning + Design
Ana Petrlic, Mountain Recreation & Conservation Authority
Timothy Stapleton, Los Angeles County, Department of Regional Planning
Paul Ferrazzi, City of Culver City
Nabil Abu-Ghazaleh, West Los Angeles College
Glenn Striegler, Los Angeles Unified School District
Scott Zeidman, Culver City Unified School District
Roger Shockley, Vickers Family Trust
Liz Gosnell, Cone Fee Family Trust
Ian Cousineau, Raintree Community HOA
Gary Gless, Windsor Hills HOA
Jon Melvin, Blair Hills HOA
Catherine Cottles, United HOA (View Park)
Ronda Jones, Baldwin Hills Estates HOA
John Kuechle, Culver Crest Neighborhood Assoc.
Carmen Spiva, Ladera Heights Civic Association
George Mallory, Homeowner (Lewis Homes)
Irma Munoz, Homeowner (Baldwin Vista)
Toni Tabor, Windsor Hills Block Club
Lark Galloway-Gilliam, Community Health Councils, Inc.
Gwendolyn Flynn, Community Health Councils, Inc.
David McNeill, Baldwin Hills Conservancy
Robert Garcia, The City Project
Daniel Tormey, Catalyst Environmental Solutions
Christine Halley, Sentinel Peak Resources California, LLC
Jim Nelson, Sentinel Peak Resources California, LLC
James Ashby, PG Environmental
Sarah Torres, PG Environmental

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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http://www.waterboards.ca.gov/losangeles

ORDER NO. R4-2018-0020
NPDES NO. CA0057827

WASTE DISCHARGE REQUIREMENTS FOR THE SENTINEL PEAK RESOURCES CALIFORNIA, LLC INGLEWOOD OIL FIELD

The following Discharger is subject to waste discharge requirements (WDRs) set forth in this Order:

Table 1. Discharger Information

Discharger	Sentinel Peak Resources California, LLC
Name of Facility	Inglewood Oil Field
Facility Address	5640 South Fairfax Avenue
	Los Angeles, California 90056
	Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Storm water runoff and construction storm water	33.9894°	-118.3692°	Centinela Creek
002	Storm water runoff and construction storm water	34.0144°	-118.3747°	Ballona Creek Reach 2
003	Storm water runoff and construction storm water	34.9908°	-118.3611°	Centinela Creek
004	Storm water runoff and construction storm water	34.0008°	-118.3842°	Ballona Creek Reach 2
005	Storm water runoff and construction storm water	34.0081°	-118.3867°	Ballona Creek Reach 2
006	Storm water runoff and construction storm water	34.0100°	-118.3867°	Ballona Creek Reach 2

Table 3. Administrative Information

This Order was adopted on:	February 8, 2018
This Order shall become effective on:	April 1, 2018
This Order shall expire on:	March 31, 2023
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	180 days prior to the Order expiration date
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	Major

I, Samuel Unger, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on **February 8, 2018**.

Samuel Unger

Samuel Unger, P.E., Executive Officer

CONTENTS

TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing Sentinel Peak Resources California, LLC, Inglewood Oil Field (Field or Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

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

A. Legal Authorities. This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge locations described in Table 2 subject to the WDRs in this Order.

B. 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 the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through J are also incorporated into this Order.

C. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections IV.B, IV.C, and V.B 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.

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

E. 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.

THEREFORE, IT IS HEREBY ORDERED that this Order supersedes Order No. R4-2013-0021 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 CWA and regulations and guidelines adopted thereunder, the Discharger is authorized to discharge from the identified Facility and outfalls into waters of the United States, and shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for violations of the previous Order.

III. DISCHARGE PROHIBITIONS

A. Wastes discharged shall be limited to a maximum of 7.55 million gallons per day (MGD) of storm water (storm water runoff and construction storm water) through Discharge Points 001 through 006 as described in the Fact Sheet (Attachment F). The discharge of non-storm water (wastewater related to industrial activities) and wastes from accidental spills or other sources is prohibited.

B. 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 Ballona Creek, or other waters of the State, are prohibited.

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

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

E. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or the State Water Resources Control Board (State Water Board) as required by the federal CWA and regulations adopted thereunder.

F. The discharge of oil or any residuary product of petroleum to waters of the State, except in accordance with the waste discharge requirements or other provisions of Division 7 of the Water Code, is prohibited.

G. The discharge of any radiological, chemical, or biological warfare agent into the waters of the state is prohibited under Water Code section 13375.

H. 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.

I. 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.

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

K. The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Final Effluent Limitations – Discharge Point 001 (LAI Last Chance Basin)

a. The Discharger shall maintain compliance with the following effluent limitations individually at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program (Attachment E):

Table 4a. Effluent Limitations at Discharge Point 001 (LAI Last Chance Basin)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--
	lbs/day[1]	--	167	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	83	--	--
pH	s.u.	--	--	6.5	8.5
Total Suspended Solids (TSS)	mg/L	--	75	--	--
	lbs/day[1]	--	417	--	--
Non-Conventional Pollutants					
Chronic Toxicity[2]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--
Settleable Solids	ml/L	--	0.3	--	--
Temperature	deg. F	--	--	--	86
Turbidity	NTU		75	--	--
Total Petroleum Hydrocarbons (TPH)[3, 5]	µg/L	--	100	--	--
	lbs/day[1]	--	0.56	--	--
Priority Pollutants					
Copper , Total Recoverable (All-weather)[4]	µg/L	--	23	--	--
	lbs/day[1]	--	0.13	--	--
Lead, Total Recoverable (All-weather)[4]	µg/L	--	10.8	--	--
	lbs/day[1]	--	0.060	--	--
Zinc, Total Recoverable (All-weather)	µg/L	--	185	--	--
	lbs/day[1]	--	1.03	--	--
Cyanide	µg/L	--	8.5	--	--
	lbs/day[1]	--	0.047	--	--
Bis (2-Ethylhexyl) Phthalate	µg/L	--	12	--	--
	lbs/day[1]	--	0.067	--	--

1. The mass emission rates are based on the maximum permitted flow rate of 0.666 MGD at Discharge Point 001, and are calculated as follows:

   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

2. The maximum daily effluent limitation (MDEL) for chronic toxicity shall be reported as "Pass" or "Fail" and "% Effect". The MDEL is exceeded when a toxicity test results in a "Fail," and the percent effect is greater than or equal to 0.50. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL).

3. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

4. Effluent limitations for these metals will be effective after August 7, 2019.

5. Effluent limitations for TPH will be effective after August 7, 2019, as per the accompanying Time Schedule Order No. R4-2018-0021.

2. Final Effluent Limitations – Discharge Point 002 (Dabney-Lloyd Basin)

a. The Discharger shall maintain compliance with the following effluent limitations individually at Discharge Point 002, with compliance measured at Monitoring Location EFF-002 as described in the Monitoring and Reporting Program (Attachment E):

Table 4b. Effluent Limitations at Discharge Point 002 (Dabney-Lloyd Basin)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--
	lbs/day[1]	--	766	--	--
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	383	--	--
pH	s.u.	--	--	6.5	8.5
Settleable Solids	ml/L	--	0.3	--	--
Total Suspended Solids (TSS)	mg/L	--	75	--	--
	lbs/day[1]	--	1910	--	--
Non-Conventional Pollutants					
Chronic Toxicity[2]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--
Temperature	deg. F	--	--	--	86
Turbidity	NTU		75	--	--
Total Petroleum Hydrocarbons (TPH)[3, 6]	µg/L	--	100	--	--
	lbs/day[1]	--	2.55	--	--
Priority Pollutants					
Copper , Total Recoverable (Dry-weather)[5]	µg/L	--	58	--	--
	lbs/day[1]	--	1.48	--	--
Copper , Total Recoverable (Wet-weather)[4, 5]	µg/L	--	14	--	--
	lbs/day[1]	--	0.36	--	--
Lead, Total Recoverable (Dry-weather)[5]	µg/L	--	32	--	--
	lbs/day[1]	--	0.82	--	--
Lead, Total Recoverable (Wet-weather)[5]	µg/L	--	77	--	--
	lbs/day[1]	--	1.97	--	--
Selenium , Total Recoverable (All-weather)	µg/L	--	8.7	--	--
	lbs/day[1]	--	0.22	--	--
Zinc, Total Recoverable (Dry-weather)[5]	µg/L	--	733	--	--
	lbs/day[1]	--	18.7	--	--
Zinc, Total Recoverable (Wet-weather)[4, 5]	µg/L	--	105	--	--
	lbs/day[1]	--	2.68	--	--

1. The mass emission rates are based on the maximum permitted flow rate of 3.06 MGD at Discharge Point 002, and are calculated as follows:

   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

2. The maximum daily effluent limitation (MDEL) for chronic toxicity shall be reported as “Pass” or “Fail” and “% Effect”. The MDEL is exceeded when a toxicity test results in a “Fail,” and the percent effect is greater than or equal to 0.50. Report “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL).

3. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

4. Effluent limitations for these metals will be effective after August 7, 2019.

5. Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona

Creek is equal to or greater than 64 cfs. Flow data can be obtained by contacting Mr. Arthur Gotingco (Tel: 626-458-6379; Email: agoting@dpw.lacounty.gov) at LACDPW.

6. Effluent limitations for TPH will be effective after August 7, 2019, as per the accompanying Time Schedule Order No. R4-2018-0021.

3. Final Effluent Limitations – Discharge Point 003 (Stocker Basin)

a. The Discharger shall maintain compliance with the following effluent limitations individually at Discharge Point 003, with compliance measured at Monitoring Location EFF-003 as described in the Monitoring and Reporting Program (Attachment E):

Table 4c. Effluent Limitations at Discharge Point 003 (Stocker Basin)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--
	lbs/day[1]	--	159	--	--
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	79	--	--
pH	s.u.	--	--	6.5	8.5
Settleable Solids	ml/L	--	0.3	--	--
Total Suspended Solids (TSS)	mg/L	--	75	--	--
	lbs/day[1]	--	397	--	--
Non-Conventional Pollutants					
Chronic Toxicity[2]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--
Temperature	deg. F	--	--	--	86
Turbidity	NTU		75	--	--
Total Petroleum Hydrocarbons (TPH)[3, 5]	µg/L	--	100	--	--
	lbs/day[1]	--	0.53	--	--
Priority Pollutants					
Copper , Total Recoverable (All-weather)[4]	µg/L	--	23	--	--
	lbs/day[1]	--	0.12	--	--
Lead, Total Recoverable (All-weather)[4]	µg/L	--	10	--	--
	lbs/day[1]	--	0.053	--	--
Zinc, Total Recoverable (All-weather)	µg/L	--	185	--	--
	lbs/day[1]	--	0.98	--	--

1. The mass emission rates are based on the maximum permitted flow rate of 0.634 MGD at Discharge Point 003, and are calculated as follows:

   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

2. The maximum daily effluent limitation (MDEL) for chronic toxicity shall be reported as “Pass” or “Fail” and “% Effect”. The MDEL is exceeded when a toxicity test results in a “Fail,” and the percent effect is greater than or equal to 0.50. Report “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL).

3. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

4. Effluent limitations for these metals will be effective after August 7, 2019.

5. Effluent limitations for TPH will be effective after August 7, 2019, as per the accompanying Time Schedule Order No. R4-2018-0021.

4. Final Effluent Limitations – Discharge Point 004 (Vickers - I Basin)

a. The Discharger shall maintain compliance with the following effluent limitations individually at Discharge Point 004, with compliance measured at Monitoring Location EFF-004 as described in the Monitoring and Reporting Program (Attachment E):

Table 4d. Effluent Limitations at Discharge Point 004 (Vickers - I Basin)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--
	lbs/day[1]	--	395	--	--
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	198	--	--
pH	s.u.	--	--	6.5	8.5
Settleable Solids	ml/L	--	0.3	--	--
Total Suspended Solids (TSS)	mg/L	--	75	--	--
	lbs/day[1]	--	988	--	--
Non-Conventional Pollutants					
Chronic Toxicity[2]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--
Temperature	deg. F	--	--	--	86
Turbidity	NTU		75	--	--
Total Petroleum Hydrocarbons (TPH)[3, 5]	µg/L	--	100	--	--
	lbs/day[1]	--	1.3	--	--
Priority Pollutants					
Copper , Total Recoverable (Dry-weather)[4]	µg/L	--	58	--	--
	lbs/day[1]	--	0.76	--	--
Copper , Total Recoverable (Wet-weather)[4]	µg/L	--	14	--	--
	lbs/day[1]	--	0.18	--	--
Lead, Total Recoverable (Dry-weather)[4]	µg/L	--	32	--	--
	lbs/day[1]	--	0.42	--	--
Lead, Total Recoverable (Wet-weather)[4]	µg/L	--	77	--	--
	lbs/day[1]	--	1.01	--	--
Zinc, Total Recoverable (Dry-weather)[4]	µg/L	--	733	--	--
	lbs/day[1]	--	9.66	--	--
Zinc, Total Recoverable (Wet-weather)[4]	µg/L	--	105	--	--
	lbs/day[1]	--	1.38	--	--

1. The mass emission rates are based on the maximum permitted flow rate of 1.58 MGD at Discharge Point 004, and are calculated as follows:

Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

2. The maximum daily effluent limitation (MDEL) for chronic toxicity shall be reported as "Pass" or "Fail" and "% Effect". The MDEL is exceeded when a toxicity test results in a "Fail," and the percent effect is greater than or equal to 0.50. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL).
3. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).
4. Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs. Flow data can be obtained by contacting Mr. Arthur Gotingco (Tel: 626-458-6379; Email: agoting@dpw.lacounty.gov) at LACDPW.
5. Effluent limitations for TPH will be effective after August 7, 2019, as per the accompanying Time Schedule Order No. R4-2018-0021.

5. Final Effluent Limitations – Discharge Point 005 (Lower Vickers - II Basin)

a. The Discharger shall maintain compliance with the following effluent limitations individually at Discharge Point 005, with compliance measured at Monitoring Location EFF-005 as described in the Monitoring and Reporting Program (Attachment E):

Table 4e. Effluent Limitations at Discharge Point 005 (Lower Vickers - II Basin)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--
	lbs/day[1]	--	253	--	--
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	126	--	--
pH	s.u.	--	--	6.5	8.5
Settleable Solids	ml/L	--	0.3	--	--
Total Suspended Solids (TSS)	mg/L	--	75	--	--
	lbs/day[1]	--	632	--	--
Non-Conventional Pollutants					
Chronic Toxicity[2]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--
Temperature	deg. F	--	--	--	86
Turbidity	NTU		75	--	--
Total Petroleum Hydrocarbons (TPH)[3, 5]	µg/L	--	100	--	--
	lbs/day[1]	--	0.84	--	--
Priority Pollutants					
Copper , Total Recoverable (Dry-weather)[4]	µg/L	--	58	--	--
	lbs/day[1]	--	0.49	--	--
Copper , Total Recoverable (Wet-weather)[4]	µg/L	--	14	--	--
	lbs/day[1]	--	0.12	--	--
Lead, Total Recoverable (Dry-weather)[4]	µg/L	--	32	--	--
	lbs/day[1]	--	0.27	--	--
Lead, Total Recoverable (Wet-weather)[4]	µg/L	--	77	--	--
	lbs/day[1]	--	0.65	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Zinc, Total Recoverable (Dry-weather)[4]	µg/L	--	733	--	--
	lbs/day[1]	--	6.17	--	--
Zinc, Total Recoverable (Wet-weather)[4]	µg/L	--	105	--	--
	lbs/day[1]	--	0.88	--	--

1. The mass emission rates are based on the maximum permitted flow rate of 1.01 MGD at Discharge Point 005, and are calculated as follows:

   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

2. The maximum daily effluent limitation (MDEL) for chronic toxicity shall be reported as "Pass" or "Fail" and "% Effect". The MDEL is exceeded when a toxicity test results in a "Fail," and the percent effect is greater than or equal to 0.50. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL).

3. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

4. Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs. Flow data can be obtained by contacting Mr. Arthur Gotingco (Tel: 626-458-6379; Email: agoting@dpw.lacounty.gov) at LACDPW.

5. Effluent limitations for TPH will be effective after August 7, 2019, as per the accompanying Time Schedule Order No. R4-2018-0021

6. Final Effluent Limitations – Discharge Point 006 (Upper Vickers - II Basin)

a. The Discharger shall maintain compliance with the following effluent limitations individually at Discharge Point 006, with compliance measured at Monitoring Location EFF-006 as described in the Monitoring and Reporting Program (Attachment E):

Table 4f. Effluent Limitations at Discharge Point 006 (Upper Vickers - II Basin)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--
	lbs/day[1]	--	150	--	--
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	75	--	--
pH	s.u.	--	--	6.5	8.5
Settleable Solids	ml/L	--	0.3	--	--
Total Suspended Solids (TSS)	mg/L	--	75	--	--
	lbs/day[1]	--	375	--	--
Non-Conventional Pollutants					
Chronic Toxicity[2]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--
Temperature	deg. F	--	--	--	86
Turbidity	NTU		75	--	--
Total Petroleum Hydrocarbons (TPH)[3, 6]	µg/L	--	100	--	--
	lbs/day[1]	--	0.50	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Priority Pollutants					
Copper , Total Recoverable (Dry-weather)[5]	µg/L	--	58	--	--
	lbs/day[1]	--	0.29	--	--
Copper , Total Recoverable (Wet-weather)[4, 5]	µg/L	--	14	--	--
	lbs/day[1]	--	0.070	--	--
Lead, Total Recoverable (Dry-weather)[5]	µg/L	--	32	--	--
	lbs/day[1]	--	0.16	--	--
Lead, Total Recoverable (Wet-weather)[5]	µg/L	--	77	--	--
	lbs/day[1]	--	0.39	--	--
Mercury , Total Recoverable (All-weather)	µg/L	--	0.10	--	--
	lbs/day[1]	--	0.00050	--	--
Zinc, Total Recoverable (Dry-weather)[5]	µg/L	--	733	--	--
	lbs/day[1]	--	3.67	--	--
Zinc, Total Recoverable (Wet-weather)[4, 5]	µg/L	--	105	--	--
	lbs/day[1]	--	0.53	--	--

1. The mass emission rates are based on the maximum permitted flow rate of 0.6 MGD at Discharge Point 006, and are calculated as follows:

   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

2. The maximum daily effluent limitation (MDEL) for chronic toxicity shall be reported as "Pass" or "Fail" and "% Effect". The MDEL is exceeded when a toxicity test results in a "Fail," and the percent effect is greater than or equal to 0.50. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL).

3. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

4. Effluent limitations for these metals will be effective after August 7, 2019.

5. Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs. Flow data can be obtained by contacting Mr. Arthur Gotingco (Tel: 626-458-6379; Email: agoting@dpw.lacounty.gov) at LACDPW.

6. Effluent limitations for TPH will be effective after August 7, 2019, as per the accompanying Time Schedule Order No. R4-2018-0021.

B. Effluent Sediment Limitations

1. Final Effluent Sediment Limitations – Discharge Points 001 through 006

a. The Ballona Creek Estuary Toxic Pollutants TMDL requires the Discharger maintain compliance with the following sediment limitations in the effluents from Discharge Points 001 through 006, with compliance measured at Monitoring Locations EFF-001 through 006, respectively, as described in the attached Monitoring and Reporting Program (MRP) (Attachment E). The Discharger shall collect sufficient effluent sample to provide an adequate amount of effluent sediments for sediment analyses or other such analytical method approved in advance by the Regional Board that would allow direct comparison of effluent sediment levels with sediment limitations.

Table 5. Effluent Sediment Limitations—Discharge Points 001 through 006

Parameter	Units	Effluent Sediment Limitations
		Maximum Daily
Cadmium, Total Recoverable	mg/kg	1.2
Copper, Total Recoverable	mg/kg	34
Lead, Total Recoverable	mg/kg	46.7
Silver, Total Recoverable	mg/kg	1.0
Zinc, Total Recoverable	mg/kg	150
Chlordane	µg/kg	1.3
DDTs[1]	µg/kg	1.9
Total PCBs[2]	µg/kg	3.2

1. The State Water Board Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality, August 25, 2009, (known as Sediment Quality Plan, Attachment A) listed chemical analytes needed to characterize sediment contamination exposure and effect. According to Sediment Quality Plan, DDTs shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD and 2,4'DDD.

2. According to Sediment Quality Plan, total PCBs (polychlorinated biphenyls) shall mean the sum of the following PCB congeners: 2,4'-dichlorobiphenyl, 2,2',5-trichlorobiphenyl, 2,4,4'-trichlorobiphenyl, 2,2',3,5'-tetrachlorobiphenyl, 2,2',5,5'-tetrachlorobiphenyl, 2,3',4,4'-tetrachlorobiphenyl, 2,2',4,5,5'-pentachlorobiphenyl, 2,3,3',4,4'-pentachlorobiphenyl, 2,3',4,4',5-pentachlorobiphenyl, 2,2',3,3',4,4'-hexachlorobiphenyl, 2,2',3,4,4',5'-hexachlorobiphenyl, 2,2',4,4',5,5'-hexachlorobiphenyl, 2,2',3,3',4,4',5-heptachlorobiphenyl, 2,2',3,4,4',5,5'-heptachlorobiphenyl, 2,2',3,4',5,5',6-heptachlorobiphenyl, 2,2',3,3',4,4',5,6-octachlorobiphenyl, 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl, and decachlorobiphenyl.

C. Land Discharge Specifications – Not Applicable

D. Recycling Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

The discharge shall not cause the following in Ballona Creek or its tributary, Centinela Creek.:

1. The pH of the receiving water shall not be depressed below 6.5 or raised above 8.5 as a result of the waste discharge. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of the waste discharge. Natural conditions shall be determined on a case-by-case basis.

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

3. The mean annual concentration of dissolved oxygen shall be greater than 7 mg/L, and no single determination shall be less than 5.0 mg/L except when natural conditions cause lesser concentrations. Natural conditions shall be determined on a case-by-case basis.

4. 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.

a. Geometric Mean Limit

i. *E. coli* density shall not exceed 126/100 mL.

b. Single Sample Limit

i. *E. coli* density shall not exceed 235/100 mL.

5. Exceedance of the total ammonia (as N) concentrations specified in the 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; and the Regional Water Board Resolution No. 2005-014, An Amendment to the Water Quality Control Plant for the Los Angeles Region to Revise Early Life Stage Implementation Provision of the Freshwater Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) for Protection of Aquatic Life.

6. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.

7. Where natural turbidity is between 0 to 50 NTU, increases in turbidity shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases in turbidity shall not exceed 10%.

8. 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.

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

10. 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.

11. Accumulation of bottom deposits or aquatic growths.

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

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

14. Alteration of apparent color beyond present natural background levels.

15. Damage, discolor, or formation of sludge deposits on flood control structures or facilities, or overloading of the design capacity.

16. Degradation of 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. Nuisance or adversely affect beneficial uses of the receiving water, including but not limited to biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

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

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D.

2. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 C.F.R. 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 programs developed to comply with NPDES permits issued by the Regional Water Board to local agencies.

c. 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.

d. 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.

e. Oil or oily material, chemicals, refuse, or other wastes that constitute a condition of pollution or nuisance 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.

f. 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.

g. 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.

h. 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.

i. The Discharger shall file with the Regional Water Board a report of waste discharge at least 180 days before making any material change or proposed changes in the character, location, or volume of the discharge.

j. 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 an intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.

k. 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, a copy of which shall be forwarded to the Regional Water Board.

l. The Water Code provides that any person who violates a waste discharge requirement or a provision of the Water Code is subject to civil liability 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 liability 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.

m. Violation 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.

n. 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. U.S. EPA registration number, if applicable.

o. 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.

p. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (213) 576-6600 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.

q. 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.)

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

B. Monitoring and Reporting Program (MRP) Requirements

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

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 may 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, in accordance with the provisions set forth in 40 C.F.R., parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new minimum levels (MLs).

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

e. 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.

f. 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.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.** The Discharger shall submit to the Regional Water Board an Initial Investigation TRE workplan (1-2 pages) **within 90 days** of the effective date of this permit. This plan shall describe the steps the Discharger intends to follow in the event that toxicity is detected. See section V of the Monitoring and Reporting Program (Attachment E) for an overview of TRE requirements.

b. **Effluent Sediment Monitoring.** The Ballona Creek Estuary Toxic Pollutants TMDL requires the Discharger maintain compliance with the sediment limitations in Table 5. The Discharger is required to collect a sufficient amount of effluent sediment from each discharge point for the sediment analyses. Since the TSS concentration in the final discharge may be less than the TSS effluent limitation of 75 mg/L, a very large volume of effluent sample may be required in order to gather enough sediment for the required analyses (metals and organics). Therefore, high resolution analytical methods (EPA approved) may be used to analyze specific constituents in the sediments. Because of the much lower method detection limits provided by the high resolution analytical methods, less amount of sediments will be required for the demonstration of compliance with the sediment limitations. **Within 90 days** of the effective date of this Order, the Discharger may submit a work plan to the Regional Water Board for approval by the Executive Officer to analyze discharge sediments using high resolution analytical methods. The work plan shall include the proposed high resolution analytical methods for sediment analyses, the sampling protocols and the estimated volume of effluent required for each analysis when using the proposed high resolution analytical method at a prespecified TSS level (less than 75 mg/L) in the effluent.

3. Best Management Practices and Storm Water Pollution Prevention

a. Storm Water Pollution Prevention, Best Management Practices, and Spill Contingency Plans.

The Discharger shall submit, within **90 days** of the effective date of this Order (unless otherwise stated):

i. 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 and trash from being discharged directly to waters of the State. The SWPPP shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge point; describe the activities in each area and the potential for contamination of storm water runoff and the discharge of trash or hazardous waste/material; and address the feasibility of containment and/or treatment of storm water. In addition, the SWPPP shall address and include best management practices procedures that the Discharger will implement to prohibit the discharge of trash from the Facility. The SWPPP shall be developed in accordance with the requirements in Attachment G.

ii. An updated **Best Management Practices Plan (BMPP)** that will be implemented to reduce the discharge of pollutants to the receiving water. The BMPP shall include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material and trash

from being discharged to waters of the State. Further, the Discharger shall ensure that the storm water discharges from the Facility would neither cause nor contribute to a nuisance in the receiving water, and that unauthorized discharges (i.e. spills or non-storm water discharges) to the receiving water have been effectively prohibited. In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material and trash discharge to surface waters. The BMPs shall be consistent with the general guidance contained in the U.S. EPA Guidance Manual for Developing Best Management Practices (BMPs) (EPA 833-B-93-004). The BMPP can be included and submitted as part of the SWPPP**.**

iii. An updated **Spill Control Plan (SCP)**, that describes the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The SCP may be substituted with an updated version of the Discharger's existing Spill Prevention Control and Countermeasure (SPCC) Plan.

iv. Submit a report to the Regional Board within **12 months** of the effective date of this Order that analyzes the feasibility of implementing additional stormwater storage capacity to handle high-intensity storm events.

Each plan shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The plans shall be reviewed annually and at the same time and updated as required. Updated information shall be submitted to the Regional Water Board within 30 days of revision.

The Discharger shall implement the SWPPP, BMPP, and SCP (or SPCC) within 10 days of approval by the Executive Officer or no later than 90 days after submission to the Regional Water Board, whichever comes first. The Discharger shall continue to implement any existing and previously approved SWPPP, BMPP, and SCP (or SPCC) until the updated version is approved by the Executive Officer or until the stipulated 90-day period after the updated SWPPP, BMPP, and SCP (or SPCC) submittal has occurred.

4. Construction, Operation and Maintenance Specifications

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

5. Other Special Provisions – Not Applicable

6. 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.H. of the MRP), then the Discharger is out of compliance.

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

If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a

group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

C. Effluent Limitations Expressed as a Median.

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

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

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

D. 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.

E. Average Monthly Effluent Limitation (AMEL).

If the average (or when applicable, the median determined by subsection 2 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. The concentration of a pollutant (an arithmetic mean or a median) in these samples estimated from the

"Multiple Sample Data Reduction" section above, will be used for compliance determination.

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

F. Maximum Daily Effluent Limitation (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.

G. 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).

H. 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.)

I. Chronic Toxicity.

The discharge is subject to determination of "Pass" or "Fail" and "Percent Effect" from a single-effluent concentration chronic toxicity test at the discharge IWC using the Test of Significant Toxicity (TST) statistical approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge IWC response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass". A test result that does not reject this null hypothesis is reported as "Fail". The relative "Percent Effect" at the discharge IWC is defined and reported as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response) × 100%.

The Median Monthly Effluent Limitation (MMEL) for chronic toxicity is exceeded and a violation will be flagged when the median of no more than three independent chronic toxicity tests, conducted within the same calendar month and analyzed using the TST statistical approach, results in "Fail". The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in "Fail."

The Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST statistical approach, results in "Fail" and the "Percent Effect" is ≥ 50%.

J. Mass and Concentration Limitations.

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

K. Median Monthly Effluent Limitation (MMEL).

If the median of daily discharges over a calendar month exceeds the MMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of noncompliance in a 31-day month). However, an alleged violation of the MMEL will be considered one violation for the purpose of assessing State mandatory minimum penalties. If no sample (daily discharge) is taken over a calendar month, no compliance determination can be made for that month with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

L. Bacterial Standards and Analyses.

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

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

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for *Enterococcus*). The detection method used for each analysis shall be reported with the results of the analysis.

Detection methods used for coliforms (total, fecal, and *E. coli*) and *Enterococcus* shall be those presented in Table 1A of 40 C.F.R. part 136 (revised May 18, 2012), unless alternate methods have been approved by U.S. EPA pursuant to 40 C.F.R. part 136 or improved methods have been determined by the Executive Officer and/or U.S. EPA.

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.

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

Best Management Practices
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 controls 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. Sample results reported as DNQ are estimated concentrations.

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.

Dry Weather
Any day when the maximum daily flow in the Ballona Creek is less than 64 cubic feet per second (cfs). Flow data for Ballona Creek is currently monitored between Sawtelle Boulevard and Sepulveda Boulevard by Los Angeles County Department of Public Works (LACDPW) at Stream Gage No. F38C-R.

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 wasteload allocation (WLA) as used in U.S. EPA 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 places for its current discharge that is or will be expanding, upgrading, or modifying its permitted discharge after the effective date of this Order.)

Four-Day Average of Daily Maximum Flows
The average of daily maxima taken from the data set in four-day intervals.

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).

Median Monthly Effluent Limitation (MMEL)
The MMEL is, for the purposes of this Policy, an effluent limit based on the median results of three independent toxicity tests, conducted within the same calendar month, and analyzed using the TST statistical approach. The MMEL is exceeded when the median results (i.e. two out of three) is a “fail”.

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 40 C.F.R. 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.

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 Water Resources Control Board (State Water Board) or Regional Water Board.

Reporting Level (RL)
The 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, including an additional factor if applicable as discussed herein. 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.

Significant Storm Event
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.

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.)

Trash
All improperly discarded solid material from any production, manufacturing, or processing operation including, but not limited to, products, product packaging, or containers constructed of plastic, steel, aluminum, glass, paper, or other synthetic or natural material.

Wet Weather
Any day when the maximum daily flow in the Ballona Creek is equal to or greater than 64 cubic feet per second (cfs). Flow data for Ballona Creek is currently monitored between Sawtelle Boulevard and Sepulveda Boulevard by Los Angeles County Department of Public Works (LACDPW) at Stream Gage No. F38C-R.

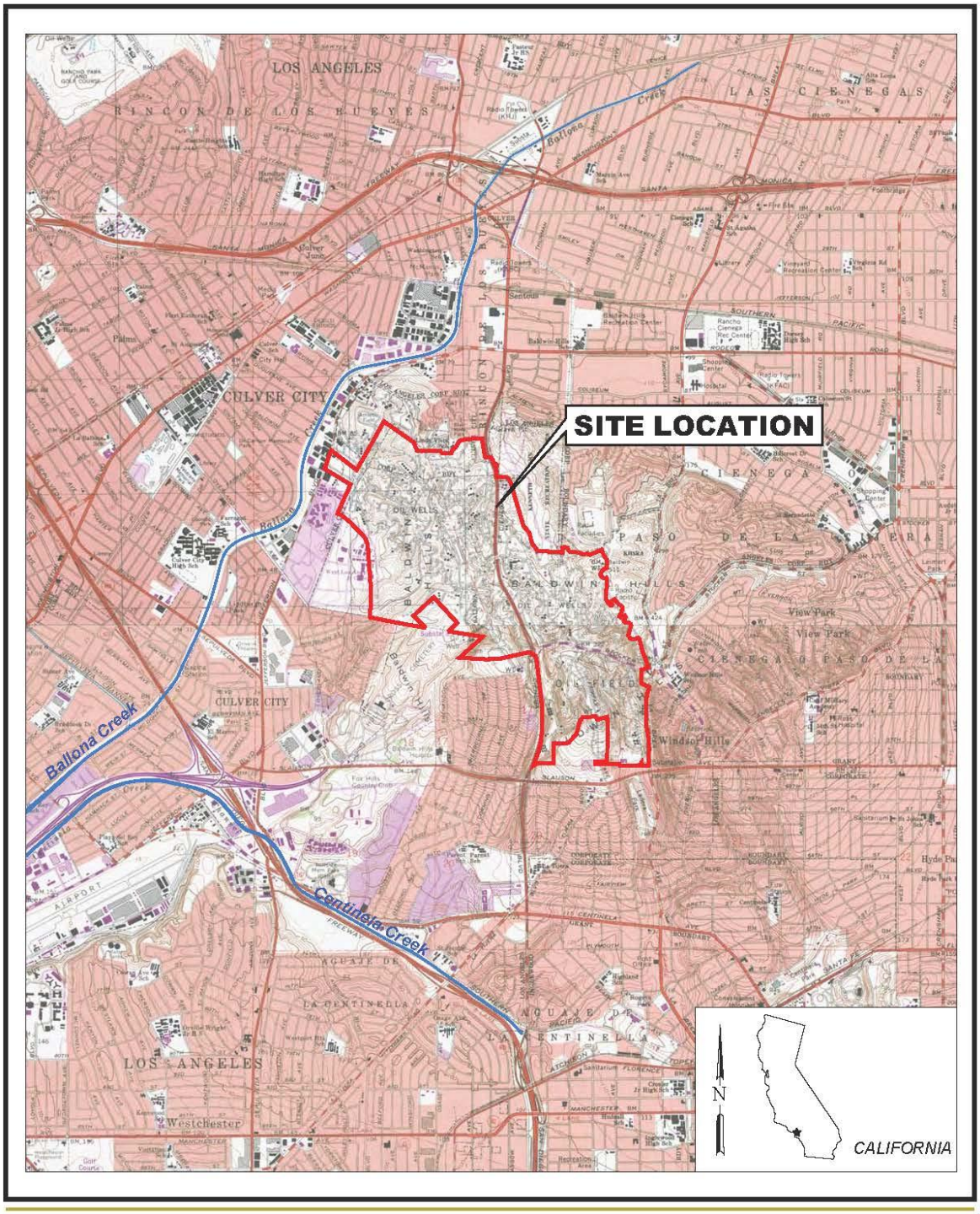
ACRONYMS AND ABBREVIATIONS

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
C.C.R. .....California Code of Regulations
CEQA .....California Environmental Quality Act
C.F.R. .....Code of Federal Regulations
CTR.....California Toxics Rule
CV .....Coefficient of Variation
CWA.....Clean Water Act
CWC .....California Water Code
Discharger .....Sentinel Peak Resources California, LLC
DMR .....Discharge Monitoring Report
DNQ .....Detected But Not Quantified
ELAP .....State Water Resources Control Board, Drinking Water Division, Environmental Laboratory Accreditation Program
ELG .....Effluent Limitations, Guidelines, and Standards
Facility .....Inglewood Oil Field
g/kg.....grams per kilogram
gpd .....gallons per day
IWC .....In-stream Waste Concentration
LA.....Load Allocations
LACDPW .....County of Los Angeles, Department of Public Works
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
MMEL.....Monthly Median Effluent Limitation
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
Sediment Quality Plan .....*Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*
SIP.....State Implementation Policy (Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California)
SMR .....Self-Monitoring Reports
State Water Board .....California State Water Resources Control Board
SWPPP .....Storm Water Pollution Prevention Plan
TAC .....Test Acceptability Criteria
TBEL .....Technology-Based Effluent Limitation
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
TST.....Test of Significant Toxicity Statistical Approach
TU_c .....Chronic Toxicity Unit
U.S. EPA .....United States Environmental Protection Agency
USGS .....United States Geological Survey
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 – MAPS

Location of Inglewood Oil Field



Catalyst ENVIRONMENTAL SOLUTIONS

DRAFTED BY: JCampbell | DATE: 3/25/17

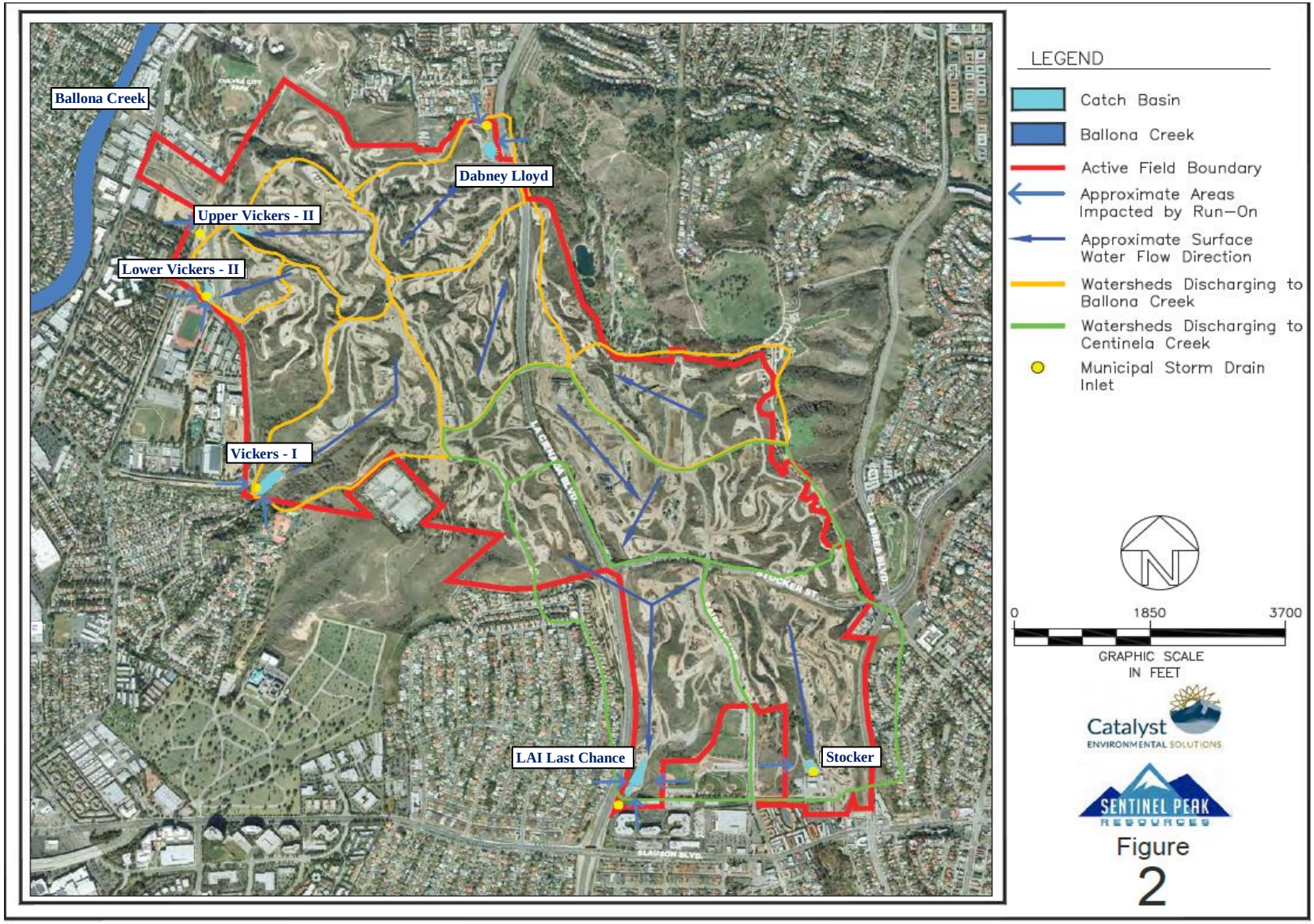
Regional Location Map

Sentinel Peak Resources
5640 South Fairfax Avenue, Los Angeles, California 90056

Figure 1

PROJECT: 100001

ATTACHMENT C – FACILITY FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and 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; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

2. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 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. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 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. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 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. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, U.S. EPA, 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 (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 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 (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); 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. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

G. Bypass

1. Definitions
   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 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. (40 C.F.R. § 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 (40 C.F.R. § 122.41(m)(4)(i)):
   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 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 (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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 prior notice, if possible at least 10 days before the date of the bypass. The notice shall be sent to the Regional Water Board. As of December 21, 2020, notices shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). The notice shall be sent to the Regional Water Board. As of December 21, 2020, notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 122.41(n)(2))

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

a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 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) (40 C.F.R. § 122.41(n)(3)(iii)); and

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

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. §§ 122.41(l)(3), 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:

1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. 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. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 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 U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA 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 U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 C.F.R. § 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. (40 C.F.R. § 122.22(a)(1).)

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA 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 (40 C.F.R. § 122.22(b)(1));

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

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 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. (40 C.F.R. § 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." (40 C.F.R. § 122.22(d).)

6. Any person providing the electronic signature for documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.41(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Regional Water Board or State Water Board. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance which 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 report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report 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.

For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Regional Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours:

c. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

d. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).

3. The Regional Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

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 (40 C.F.R. § 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) (40 C.F.R. § 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). (40 C.F.R. § 122.41(l)(1)(ii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 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. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 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 U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

J. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the initial recipient defined in 40 C.F.R. section 127.2(b). U.S. EPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 C.F.R. section 127.2(c)]. U.S. EPA will update and maintain this listing. (40 C.F.R. § 122.41(l)(9).)

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 13268, 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 [40 C.F.R. 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 Order shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both [40 C.F.R. 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 [40 C.F.R. 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 (40 C.F.R. § 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" (40 C.F.R. § 122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 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" (40 C.F.R. § 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (CI-6240)

CONTENTS

TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP NO. 6240)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 C.F.R.) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

I. GENERAL MONITORING PROVISIONS

A. Effluent sampling stations shall be established for Discharge Points 001 through 006, respectively, and shall be located where representative samples of that effluent can be obtained.

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

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

D. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. sections 136.3, 136.4, and 136.5 (revised August 28, 2017); or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

E. Laboratory Certification. Laboratories analyzing monitoring samples shall be certified by the State Water Board, Drinking Water Division, Environmental Laboratory Accreditation Program (ELAP) in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with 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.

F. For any analyses performed for which no procedure is specified in the U.S. EPA guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.

G. Each monitoring report must affirm in writing that “all analyses were conducted at a laboratory certified for such analyses by the State Water Board or approved by the Executive Officer and in accordance with current U.S. EPA guideline procedures or as specified in this MRP”.

H. 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.

I. The MLs employed for effluent analyses to determine compliance with effluent limitations shall be lower than the effluent limitations established in this Order for a given parameter as per the sufficiently sensitive regulations at 40 C.F.R. section 122.44(i)(1)(iv). If the ML value is not below the effluent limitations, 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.

J. The MLs employed for effluent analyses not associated with determining compliance with effluent limitations in this Order shall be lower than the lowest applicable water quality objective, for a given parameter as per the sufficiently sensitive regulations at 40 C.F.R. section 122.44(i)(1)(iv). Water quality objectives for parameters may be found in Chapter 3 of the Basin Plan and the CTR (40 C.F.R. section 131.38). If the ML value is not below the water quality objective, 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, the associated laboratory QA/QC procedures, reporting levels (RLs), and method detection limits (MDLs).

Where no U.S. EPA-approved method exists, the Regional Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Attachment H to be included in the Discharger's permit in any of the following situations:

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

2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in 40 C.F.R. part 136 (revised August 28, 2017);

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 U.S. EPA-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.

K. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 C.F.R. 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.

L. Field analyses with short sample holding times such as pH, total residual chlorine, dissolved oxygen and temperature, may be performed using properly calibrated and maintained portable instruments by trained personnel acting on the Discharger's behalf, using methods in accordance with 40 C.F.R. part 136. All field instruments must be calibrated per manufacturer's instructions. A manual containing the standard operating procedures for all field analyses,

including records of personnel proficiency training, instruments calibration and maintenance, and quality control procedures shall be maintained onsite, and shall be available for inspection by Regional Water Board staff. Information including instrument calibration, time of sample collection, time of analysis, name of analyst, quality assurance/quality control data, and measurement values shall be clearly documented during each field analysis and submitted to the Regional Water Board as part of the corresponding regular monitoring report.

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

N. 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.

O. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Unless otherwise specified in the analytical method, duplicate samples must be analyzed at a frequency of 5% (1 in 20 samples) with at least one if there are fewer than 20 samples in a batch. A batch is defined as a single analytical run encompassing no more than 24 hours from start to finish. A similar frequency shall be maintained for analyzing spiked samples.

P. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board at the following address:

State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street,
Sacramento, CA 95814

Q. For parameters that both average monthly and maximum daily 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 may 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 may be increased to weekly and may 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.

R. In the event wastes are transported to a different disposal site during the reporting 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.

S. 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
Effluent and Sediment Monitoring Station		
001	EFF-001	A location where a representative sample of effluent can be obtained from Discharge Point 001 at *LAI Last Chance Basin*, prior to discharging into the storm drain.
002	EFF-002	A location where a representative sample of effluent can be obtained from Discharge Point 002 at *Dabney-Lloyd Basin*, prior to discharging into the storm drain.
003	EFF-003	A location where a representative sample of effluent can be obtained from Discharge Point 003 at *Stocker Basin*, prior to discharging into the storm drain.
004	EFF-004	A location where a representative sample of effluent can be obtained from Discharge Point 004 at *Vickers – I Basin*, prior to discharging into the storm drain.
005	EFF-005	A location where a representative sample of effluent can be obtained from Discharge Point 005 at *Lower Vickers – II Basin*, prior to discharging into the storm drain.
006	EFF-006	A location where a representative sample of effluent can be obtained from Discharge Point 006 at *Upper Vickers – II Basin*, prior to discharging into the storm drain.
Receiving Water Monitoring Station		
--	RSW-001	A location above all Discharge Points in Ballona Creek and below National Boulevard where a representative sample can be obtained.
--	RSW-002	A location above Sawtelle Boulevard and below all Discharge Points in Ballona Creek where a representative sample can be obtained.
--	RSW-003	A location in the vicinity and upstream of Discharge Point 003 (Stocker Basin) in Centinela Creek where a representative sample can be obtained.
--	RSW-004	A location in the vicinity of West Jefferson Boulevard in Centinela Creek where a representative sample can be obtained.
--	RSW-005	The Los Angeles County Department of Public Works' Stream Gauge station F38C-R. The stream flow data may be obtained by contacting LACDPW at (626) 458-5100 or through Mr. Arthur Gotingco at (626) 458-6379 or at agoting@dpw.lacounty.gov . The data for this station is downloaded once a month with a 1-2 week processing time for the provisional data.

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations EFF-001, EFF-002, EFF-003, EFF-004, EFF-005 and EFF-006

1. The Discharger shall monitor discharges from Discharge Points 001 through 006 at Monitoring Locations EFF-001 through 006 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-2a. Effluent Monitoring at Monitoring Locations EFF-001 through 006

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow[1]	Gallons/day	Meter	1/Discharge Event	--
Conventional Pollutants				
Biochemical Oxygen Demand (BOD_5) 5-day @ 20°C[2]	mg/L	Grab	1/Discharge Event[3]	[5]
Oil and Grease[2]	mg/L	Grab	1/Discharge Event[3]	[5]
pH	standard units	Grab	1/Discharge Event[3]	[5, 6]
Total Suspended Solids (TSS)[2]	mg/L	Grab	1/Discharge Event[3]	[5]
Non-conventional Pollutants				
Ammonia, Total (as N)[2]	mg/L	Grab	1/Year[4] (First discharge of the year)	[5]
Chronic Toxicity	Pass or Fail, and % effect (TST approach)	Grab	1/Year[4] (First discharge of the year)	[5, 7, 8]
E. Coli	CFU/100mL or MPN/100mL	Grab	1/Discharge Event[3]	[5, 9]
Methyl Tertiary Butyl Ether (MTBE)	µg/L	Grab	1/Year[4] (First discharge of the year)	[5]
Nitrate (as N)	mg/L	Grab	1/Year[4] (First discharge of the year)	[5]
Nitrite (as N)	mg/L	Grab	1/Year[4] (First discharge of the year)	[5]
Nitrite plus nitrate, Total (as N)	mg/L	Grab	1/Year[4] (First discharge of the year)	[5]
Phenols[2]	mg/L	Grab	1/Year[4] (First discharge of the year)	[5]
Settleable Solids	ml/L	Grab	1/Discharge Event[3]	[5]
Temperature	°F	Grab	1/Discharge Event[3]	[5, 6]
Total Petroleum Hydrocarbons (TPH) as Gasoline (C_4-C_{12})[2, 10]	µg/L	Grab	1/Discharge Event[3]	EPA Method 8015B
TPH as Diesel (C_{13}-C_{22})[2, 10]	µg/L	Grab	1/Discharge Event[3]	EPA method 8015B

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
TPH as Waste Oil (C_{23+})[2, 10]	µg/L	Grab	1/Discharge Event[3]	EPA method 8015B
Turbidity	NTU	Grab	1/Discharge Event[3]	[5]
Priority Pollutants				
Copper, Total Recoverable[2]	µg/L	Grab	1/Discharge Event[3]	[5]
Lead, Total Recoverable[2]	µg/L	Grab	1/Discharge Event[3]	[5]
Mercury, Total Recoverable[2]	µg/L	Grab	1/Discharge Event[3]	[5]
Selenium, Total Recoverable[2]	µg/L	Grab	1/Discharge Event[3]	[5]
Zinc, Total Recoverable[2]	µg/L	Grab	1/Discharge Event[3]	[5]
Cyanide, Total[2]	µg/L	Grab	1/Discharge Event[3]	[5]
Bis(2-Ethylhexyl)Phthalate[2]	µg/L	Grab	1/Discharge Event[3]	[5]
TCDD Equivalents [12]	µg/L	Grab	1/Year[4] (First discharge of the year)	[5]
Remaining Priority Pollutants[11] (excluding asbestos)	µg/L	Grab	1/Year[4] (First discharge of the year)	[5]

1 Flow shall be recorded daily during each period of discharge. Periods of no flow shall also be reported.

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

$M = 8.34 \times C \times Q$

where: M = mass discharge for a pollutant (lbs/day)
C = Reported concentration for a pollutant (mg/L)
Q = actual discharge flow rate (MGD).

3 During periods of extended discharge, no more than one sample per week (or 7-day period) is required to be collected. Sampling shall be conducted 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. If there is no discharge to surface water, then no monitoring is required. In the corresponding monitoring report, the Discharger shall indicate under penalty of perjury that no effluent was discharged to surface water during the reporting period.

4 Monitoring is only required during years in which a discharge occurs. Annual samples shall be collected during the first discharge of the year. In the corresponding monitoring report, the Discharger shall indicate under penalty of perjury that no effluent was discharged to surface water during the reporting period.

5 Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; for priority pollutants, the methods must meet the lowest MLs specified in Attachment 4 of the SIP, provided as Attachment H in this Order Where no methods are specified for a given pollutant, the methods must be approved by the Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select a sufficiently sensitive method from the listed methods and corresponding ML necessary to demonstrate compliance with applicable effluent limitations.

6 A hand-held field meter may be used for pH and temperature, provided the meter utilizes an EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

[7] For the first chronic toxicity sampling event under this Order, the Discharger shall conduct species sensitivity screening in accordance to section V.A.4 of this MRP. Thereafter, sampling shall be performed annually using the most sensitive species.

[8] Refer to section V, Whole Effluent Toxicity Testing Requirements. The maximum daily single result shall be reported as "Pass" or "Fail" and "% Effect".

[9] Analytical methods used for *E. coli* shall be those presented in Table 1A of 40 C.F.R. part 136, unless alternate methods have been approved by U.S. EPA pursuant to 40 C.F.R. part 136 or improved methods have been determined by the Executive Officer and/or U.S. EPA.

[10] The Discharger shall report the sum of TPH as Gasoline (C_4-C_{12}), TPH as Diesel (C_{13}-C_{22}), and TPH as Oil (C_{23+}).

[11] Priority Pollutants as defined by the California Toxics Rule (CTR) and in Attachment I to this Order.

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

Dioxin-TEQ (TCDD equivalents) = Σ(Cx x TEFx)
where: Cx = concentration of dioxin or furan congener x
TEFx= TEF for congener x

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

2. The Discharger shall monitor effluent sediments (suspended solids) from Discharge Points 001 through 006 at Monitoring Locations EFF-001 through 006, respectively, as follows. The Discharger shall collect a sufficient volume of effluent water sample in order to obtain an adequate amount of effluent sediments for the sediment analyses.

Since the TSS concentration in the final discharge may be less than the TSS effluent limitation of 75 mg/L, a very large volume of effluent sample shall be collected in order to gather enough amount of sediments for the required analyses (metals and organics). Therefore, high resolution analytical methods (EPA approved) may be used to analyze specific constituents in the sediments. Within 90 days of the effective date of this Order, the Discharger may submit a work plan to the Regional Water Board for approval by the Executive Officer to analyze discharge sediments using high resolution analytical methods. The work plan shall include the proposed high resolution analytical methods for sediment analyses, the sampling protocols and the estimated volume of effluent required

for each analysis when using the proposed high resolution analytical method at a prespecified TSS level (less than 75 mg/L) in the effluent.

Table E-2b. Effluent Sediment Monitoring at Monitoring Locations EFF-001 through 006

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency	Required Analytical Test Method
Cadmium, Total Recoverable	mg/kg	Grab	1/Year[1] (First discharge of the year)	[2]
Copper, Total Recoverable	mg/kg	Grab	1/Year[1] (First discharge of the year)	[2]
Lead, Total Recoverable	mg/kg	Grab	1/Year[1] (First discharge of the year)	[2]
Silver, Total Recoverable	mg/kg	Grab	1/Year[1] (First discharge of the year)	[2]
Zinc, Total Recoverable	mg/kg	Grab	1/Year[1] (First discharge of the year)	[2]
Chlordane	µg/kg	Grab	1/Year[1] (First discharge of the year)	[2]
DDTs [3]	µg/kg	Grab	1/Year[1] (First discharge of the year)	[2]
Total PCBs [4]	µg/kg	Grab	1/Year[1] (First discharge of the year)	[2]

[1] Monitoring is only required during years in which a discharge occurs. Annual samples shall be collected during the first discharge of the year. 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 in accordance with U.S. EPA or ASTM methodologies where such methods exist. Where no U.S. EPA or ASTM methods exist, the State Board or Regional Water Board shall approve the use of other methods. Analytical tests shall be conducted by laboratories certified by the State Water Board, Drinking Water Division, Environmental Laboratory Accreditation Program (ELAP) in accordance with Water Code section 13176.

[3] The State Water Board Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality, August 25, 2009, (known as Sediment Quality Plan, Attachment A) listed chemical analytes needed to characterize sediment contamination, exposure, and effect. According to the Sediment Quality Plan, DDTs shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD and 2,4'DDD.

[4] According to the Sediment Quality Plan, total PCBs (polychlorinated biphenyls) shall mean the sum of the following PCB congeners: 2,4'-dichlorobiphenyl, 2,2',5-trichlorobiphenyl, 2,4,4'-trichlorobiphenyl, 2,2',3,5'-tetrachlorobiphenyl, 2,2',5,5'-tetrachlorobiphenyl, 2,3',4,4'-tetrachlorobiphenyl, 2,2',4,5,5'-pentachlorobiphenyl, 2,3,3',4,4'-pentachlorobiphenyl, 2,3',4,4',5-pentachlorobiphenyl, 2,2',3,3',4,4'-hexachlorobiphenyl, 2,2',3,4,4',5'-hexachlorobiphenyl, 2,2',4,4',5,5'-hexachlorobiphenyl, 2,2',3,3',4,4',5-heptachlorobiphenyl, 2,2',3,4,4',5,5'-heptachlorobiphenyl, 2,2',3,4',5,5',6-heptachlorobiphenyl, 2,2',3,3',4,4',5,6-octachlorobiphenyl, 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl, and decachlorobiphenyl.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity Testing

1. Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity

The chronic toxicity IWC for this discharge is **100 percent** effluent.

2. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform both the required toxicity tests and

Toxicity Identification Evaluation (TIE) studies. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

3. Chronic Freshwater Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity <1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples—at the in-stream waste concentration for the discharge—in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002). In no case shall these species be substituted with another test species unless written authorization from the Regional Board Executive Officer is received.

a. A static renewal toxicity test with the fathead minnow, Pimephales promelas (Larval Survival and Growth Test Method 1000.0).

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

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

4. Species Sensitivity Screening

Species sensitivity screening shall be conducted during this Order's first required sample collection. The Discharger shall collect a single effluent sample and concurrently conduct three toxicity tests, using the fish, an invertebrate, and the alga species as previously referenced in this section. The sample shall also be analyzed for the parameters required for the discharge as listed in Table E-2a. The species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine annual monitoring during the permit cycle.

Rescreening is required at least once per five (5) years. The Discharger shall rescreen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive, then the rescreening does not need to include more than one suit of tests. If a different species is the most sensitive, or if there is ambiguity, then the Discharger shall proceed with suites of screening tests using enough collected effluent for a minimum of three, but not to exceed five suites.

5. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manuals previous referenced. Additional requirements are specified below.

a. The discharge is subject to a determination of "Pass" or "Fail" and "Percent Effect" from a single-effluent concentration chronic toxicity test at the discharge IWC using the Test of Significant Toxicity (TST) statistical approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity/Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (H_o) for the TST statistical approach is: Mean discharge IWC response ≤ (0.75 x Mean control response). A test result that does not reject this null hypothesis is reported as "Fail". The relative "Percent Effect" at the discharge IWC is defined and reported as: ((Mean control response-Mean discharge IWC response) ÷ Mean control response) x 100%.

b. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method, then the Discharger must re-sample and re-test for the subsequent discharge event.

c. Dilution water and control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

d. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).

e. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rationale is explained in the Fact Sheet (Attachment F).

6. Preparation of Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan

The Discharger shall prepare and submit a generic Initial Investigation TRE Work Plan within 90 days of the permit effective date to be ready to respond to toxicity events. The Discharger shall review and update this work plan as necessary so it remains current and applicable to the discharge. At a minimum, the work plan shall include:

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

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

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

7. Toxicity Identification Evaluation and Toxicity Reduction Evaluation Process

a. **Toxicity Identification Evaluation (TIE).** A toxicity test sample is immediately subject to TIE procedures to identify the toxic chemical(s), if a chronic toxicity test shows “Fail and % Effect value ≥50”. The Discharger shall initiate a TIE using, as guidance, EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.

b. **Toxicity Reduction Evaluation (TRE).** When a toxicant or class of toxicants is identified, a TRE shall be performed for that toxicant. The TRE shall include all reasonable steps to identify the source(s) of toxicity and discuss appropriate BMPs to eliminate the causes of toxicity. No later than 30 days after the source of toxicity and appropriate BMPs and/or treatment are identified, the Discharger shall submit a TRE Corrective Action Plan to the Executive Officer for approval. At minimum, the plan shall include:

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

ii. Recommended BMPs and/or treatment to reduce the pollutant(s) causing toxicity.

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

iv. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.

v. A schedule for these actions, progress reports, and the final report.

c. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.

d. The Discharger shall conduct routine effluent monitoring for the duration of the TIE/TRE process.

e. The Regional Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

8. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter titled *Report Preparation*, including:

a. The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-4.

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

c. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1.

d. TRE/TIE results. The Regional Water Board Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses.

e. Statistical program (e.g., TST calculator, CETIS, etc.) output results for each toxicity test.

f. Tabular data and graphical plots clearly showing the laboratory’s performance for the reference toxicant for the previous 20 tests and the laboratory’s performance for the control mean, control standard deviation, and control coefficient of variation for the previous 12-month period.

g. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon request from the Regional Water Board Chief Deputy Executive Officer or the Executive Officer.

9. Ammonia Removal

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.

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.

10. Chlorine Removal

Except with prior approval from the Executive Office of the Regional Water Board, chlorine shall not be removed from bioassay samples.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Locations RSW-001 and RSW-003

1. The Discharger shall monitor the Ballona Creek and the Centinela Creek at upstream monitoring locations RSW-001 and RSW-003 as follows, and include the coordinates of the location where each receiving water sample was collected in the corresponding monitoring report:

Table E-3a. Receiving Water Monitoring Requirements at Monitoring Locations RSW-001 and RSW-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Grab[1]	1/Year[2]	[3 4]
Ammonia Nitrogen, Total (as N)	mg/L	Grab[1]	1/Year[2]	[3]
Dissolved Oxygen	mg/L	Grab[1]	1/Year[2]	[3, 4]
Hardness, Total (as $CaCO_3$)	mg/L	Grab[1]	1/Year[2]	[3]
Temperature	°F	Grab[1]	1/Year[2]	[3, 4]
Turbidity	NTU	Grab[1]	1/Year[2]	[3]
Priority Pollutants[5] (excluding asbestos)	µg/L	Grab[1]	1/Year[2]	[3]
TCDD Equivalents[6]	µg/L	Grab[1]	1/Year[2]	[3]

[1] The receiving water samples for all parameters including the Priority Pollutants must be collected at the same time. The receiving water samples shall be collected during the first hour of discharge if a discharge occurs with respect to the specific creek. If, for safety reasons, a sample cannot be obtained during the required time

period, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report.

[2] Annual monitoring at each monitoring location is required. If no discharge to the surface water occurs during the first eleven (11) months of the year, the annual sampling may be conducted at any time in December.

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

[4] A hand-held field meter may be used for pH, dissolved oxygen and temperature, provided the meter utilizes an EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

[5] Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Attachment I.

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

Dioxin-TEQ (TCDD equivalents) = Σ(Cx x TEFx)
where: Cx = concentration of dioxin or furan congener x
TEFx= TEF for congener x

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

B. Monitoring Locations RSW-002 and RSW-004

1. The Discharger shall monitor the Ballona Creek and the Centinela Creek at downstream monitoring locations RSW-001 and RSW-003 as follows, and include the coordinates of the location where each receiving water sample was collected in the corresponding monitoring report:

Table E-3b. Receiving Water Monitoring Requirements at Monitoring Locations RSW-002 and RSW-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Grab	1/Semiannual period [1,2]	[3, 4]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Semiannual period [1,2]	[3]
Dissolved Oxygen	mg/L	Grab	1/Semiannual period [1,2]	[3, 4]
Temperature	°F	Grab	1/Semiannual period [1,2]	[3, 4]
Turbidity	NTU	Grab	1/Semiannual period [1,2]	[3]
E. coli	MPN/100ml or CFU/100ml	Grab	1/Semiannual period [1,2]	[3]
Hardness, Total (as $CaCO_3$)	mg/L	Grab	1/Semiannual period [1,2]	[3]

1 One of the receiving water samples shall be collected at approximately the same time the samples are collected at RSW-001 and RSW-003 and during the first hour of discharge if a discharge occurs. If, for safety reasons, a sample cannot be obtained during the required time period, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report.

2 The semiannual monitoring at each monitoring location is required. If no discharge to the surface water occurs during the first five (5) months of any semiannual period, the semiannual receiving water sampling shall be conducted at any time in the last month (June or December) of the semiannual period.

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

4 A hand-held field meter may be used for pH, dissolved oxygen and temperature, provided the meter utilizes an EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

C. Monitoring Location RSW-005

For each day in which a discharge from the Facility occurs, the Discharger shall report the maximum daily flow (in cubic feet per second) in the Ballona Creek. Flow data for Ballona Creek is currently monitored between Sawtelle Boulevard and Sepulveda Boulevard by Los Angeles County Department of Public Works (LACDPW) at Stream Gage No. F38C-R. This station is designated as RSW-005 in this Order. This information is necessary to determine the wet weather and dry weather condition of the creek, as defined in the Ballona Creek Metals TMDL. Flow data can be obtained by contacting Mr. Arthur Gotingco (Tel: 626-458-6379; Email: agoting@dpw.lacounty.gov) at LACDPW. Data provided by LACDPW is provisional if the request is for current water year (October 1 through September 30) data and there is typically a 2-week period before the previous month's data is available due to processing and quality checking.

IX. OTHER MONITORING REQUIREMENTS

A. Rainfall Monitoring

The Discharger shall measure and record the rainfall on each day of the month or submit the data obtained from the nearest city/county operated rain gauge monitoring station. This information shall be included in the quarterly monitoring report.

B. 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 trash, 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.

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 Discharger shall indicate under penalty of perjury in the corresponding monitoring report that no effluent was discharged to surface water during the reporting period.
3. If the Discharger conducts monitoring more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the monitoring report. These results shall be reflected in the calculation of the average (or median) used in demonstrating compliance with this Order.
4. 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.
5. The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.
6. The Discharger shall report the results of chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, section V.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board’s California Integrated Water Quality System (CIWQS) Program website http://www.waterboards.ca.gov/water_issues/programs/ciwqs/. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned 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 U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. 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	April 1, 2018	One week (or any 7-day period)	Submit with quarterly SMR
1/Quarter	April 1, 2018	January 1 – March 31 April 1 – June 30 July 1 – September 30 October 1 - December 31	May 15 August 15 November 15 February 15
1/Semiannual period	April 1, 2018	January 1 – June 30 July 1 – December 31	August 15 February 15
1/Year	April 1, 2018	January 1 through December 31	February 15 of the following year

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. 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 RL 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.

   e. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. 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.

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

5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, 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 waste discharge requirements; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

C. Discharge Monitoring Reports (DMRs)

1. DMRs are U.S. EPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at:

<http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring>.

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. Storm Water Pollution Prevention Plan (SWPPP)

c. Best Management Practices Plan (BMPP)

d. Spill Contingency Plan (SCP)

The SWPPP, BMPP, and SCP shall be reviewed at a minimum once per year and updated as needed to ensure all actual or potential sources of trash and pollutants discharged from the Facility are addressed. All changes or revisions to the SWPPP, BMPP, and SCP shall be submitted to the Regional Water Board within 30 days of revisions.

2. **Within 90 days** of the effective date of this permit, the Discharger shall submit a work plan detailing the use of the high resolution analytical methods in sediment analyses to the Regional Water Board for approval by the Executive Officer. The work plan shall include sampling protocols and proposed analytical methods and indicate results generated will be able to demonstrate the compliance with sediment limitations (WLAs in the Ballona Creek Estuary Toxic Pollutants TMDL) (see section IV.A.2. of the MRP).

ATTACHMENT F – FACT SHEET

CONTENTS

TABLES

ATTACHMENT F – FACT SHEET

As described in section II.B of this Order, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance 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	4B192113018
Discharger	Sentinel Peak Resources California, LLC
Name of Facility	Inglewood Oil Field
Facility Address	5640 South Fairfax Avenue
	Los Angeles, CA 90056
	Los Angeles County
Facility Contact, Title and Phone	John Landgard, EH&S Manager, 323-298-2247
Authorized Person to Sign and Submit Reports	Christine Halley, Director of EH&S & Regulatory Affairs
Mailing Address	Same as Facility Address
Billing Address	Same as Facility Address
Type of Facility	Oil Field
Major or Minor Facility	Major
Threat to Water Quality	3
Complexity	C
Pretreatment Program	Not Applicable
Recycling Requirements	Not Applicable
Facility Permitted Flow	7.55 million gallons per day (MGD) at Discharge Points 001 to 006
Facility Design Flow	Not Applicable
Watershed	Ballona Creek
Receiving Water	Ballona Creek Reach 2, Centinela Creek
Receiving Water Type	Inland Surface Water

A. Sentinel Peak Resources California, LLC. (hereinafter, Discharger) is the owner and operator of the Inglewood Oil Field (hereinafter Facility or Field), an actively producing oil and gas field. Sentinel Peak Resources California, LLC. acquired the Field from Freeport-McMoRan Oil & Gas (FM O&G) on January 1, 2017. Plains Exploration & Production Company, the permittee in the prior order governing waste discharge from the Facility, Order No. R4-2013-0021, merged with and into FM O&G on May 31, 2013.

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 storm water runoff to Ballona Creek Reach 2 and Centinela Creek, waters of the United States, within the Ballona Creek Watershed. The Discharger was previously regulated by Order No. R4-2013-0021 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0057827, adopted on February 7, 2013, which is scheduled to expire on January 10, 2018. Attachment B provides a map of the area around the Facility. Attachment C provides flow schematics of the Facility.

C. The Discharger filed a report of waste discharge and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on July 14, 2017. The revised application was received on September 15, 2017. The application was deemed complete on October 3, 2017. A site visit was conducted on September 29, 2017, to observe operations at the Facility and to collect additional data to develop permit limitations and requirements.

D. Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

II. FACILITY DESCRIPTION

The Inglewood Oil Field comprises approximately 900 acres and is located at 5640 South Fairfax Avenue in Los Angeles, California. Oil and gas exploration and production at the site dates back to the 1920's with over 1,600 wells drilled throughout the historical boundary of the site. Existing operations involve extracting oil and gas from subsurface reservoirs located between 800 and 10,000 feet below ground surface (bgs), removal of water from the crude oil and liquids from the gas. The crude oil is shipped through pipelines to Southern California refineries to be processed into gasoline and other products. The gas is shipped by pipeline to the SoCal Gas Company for use by consumers and industry or is shipped to refineries for use in the refining process. Industrial activities that are performed on the site include:

- Onshore oil production with oil dehydration/separation and oil storage/shipping facilities;
- Water treatment and injection facilities;
- Natural gas separation facilities and storage/handling of natural gas liquids;
- Total crude oil and produced water storage;
- Stormwater Treatment Systems; and,
- Biotreatment of contaminated soil.

The Inglewood Oil Field is located in the Baldwin Hills with elevations ranging from peaks higher than 500 feet East of La Cienega Boulevard, to as low as 100 feet at the northwest corner of the site. No perennial or intermittent streams, as defined by the U.S Geological Survey, are present within the Field boundaries. Six surface water retention basins are located along drainages within the Field boundaries to regulate discharges from the site. Surface runoff sheet flows across drilling pads, service roads, and various slops to several interim basins and eventually to six surface water retention basins. The six retention basins are designed to retain oil on-site in an event of a spill and prevent oil spills from reaching the Los Angeles County storm drain system or surface water. The retention basin names and the related discharge points are:

Discharge Point	Retention Basin Name
001	LAI Last Chance Basin
002	Dabney-Lloyd Basin
003	Stocker Basin
004	Vickers - I Basin

Discharge Point	Retention Basin Name
005	Lower Vickers - II Basin
006	Upper Vickers - II Basin

A. Description of Wastewater Treatment and Controls

Storm water runoff and construction storm water within the Field are collected in the six retention basins described above. The facility utilizes a storm water treatment system at each basin to remove pollutants. The treatment system components include flocculation, settling, in-line clarification, and filtration. The Discharger continues to explore the appropriate storm water treatment system component(s) to be used at each basin based on the effluent characteristics with respect to each outfall. In addition to the treatment systems, Best Management Practices (BMPs) are in place to minimize the pollutant concentrations in the storm water runoff that drains to the six retention basins. Structural BMPs include containment berms, check dams, excelsior racks (Discharge Points 001, 002, 005 and 006) and numerous temporary BMPs (such as fiber rolls, etc). Further protection is provided at Discharge Points 003, 004 and 006 with discharge intake structures designed for oil-water separation.

The Discharger is required to implement BMPs that will effectively control the transport of pollutants associated with construction activities that will occur periodically in the Field. These BMPs will reduce pollutant concentrations in the storm water traversing the construction area prior to it entering the downstream retention basins. A description of the Field's BMPs is presented in the Storm Water Pollution Prevention Plan (SWPPP) dated April 2017.

B. Discharge Point and Receiving Water

Up to 7.55 MGD of storm water runoff is ultimately discharged into Ballona Creek (Reach 2) or Centinela Creek, waters of the United States, through Discharge Points 001 through 006. Runoff from six retention basins is first discharged to the Los Angeles County Department of Public Works storm drain system. Two of the basins (LAI Last Chance and Stocker) discharge through the storm drain system into Centinela Creek which is located approximately 1.2 miles southwest of the active field boundary. The Centinela Creek drains directly to Balolona Creek Estuary just below the boundary with Ballona Creek Reach 2. The other four basins (Dabney-Lloyd, Vickers - I, Lowers Vickers – II and Upper Vickers – II) discharge through the storm drain system to Ballona Creek Reach 2, which is located approximately 0.2 mile south of the active field boundary at the closest point. The locations of the Discharge Points, the permitted maximum runoff flows, and the receiving waters are listed below:

Discharge Point (Basin Name)	Latitude	Longitude	Maximum Rainfall Runoff Flow (mgd)	Receiving Water
001 (LAI Last Chance)	33.9894°	-118.3692°	0.666	Centinela Creek
002 (Dabney-Lloyd)	34.0144°	-118.3747°	3.06	Ballona Creek Reach 2
003 (Stocker)	34.9908°	-118.3611°	0.634	Centinela Creek
004 (Vickers - I)	34.0008°	-118.3842°	1.58	Ballona Creek Reach 2
005 (Lower Vicker - II)	34.0081°	-118.3867°	1.01	Ballona Creek Reach 2
006 (Upper Vickers - II)	34.0100°	-118.3867°	0.60	Ballona Creek Reach 2

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

Effluent limitations from Order No. R4-2013-0021 and monitoring results for Discharge Points 001 through 006 during the term of Order No. R4-2013-0021 are listed in Tables F-2a through F-2f.

Table F-2a. Historic Effluent Limitations and Monitoring Data – Discharge Point 001

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
pH	s.u.	6.5 – 8.5[3]	--	6.8 – 8.25[4]
Temperature	°F	86[5]	--	74
Biochemical Oxygen Demand (5-day@20^{0}C) (BOD)	mg/L	30	--	10.2
Oil and Grease	mg/L	15	--	1.7[6]
Phenols	mg/L	1.0	--	<0.025
Acute Toxicity	% survival	[7]		95[8]
Mercury, Total Recoverable (All-weather)	µg/L	0.10	--	<0.1
Copper , Total Recoverable (All-weather)	µg/L	23	41	58
Lead, Total Recoverable (All-weather)	µg/L	9.9	26	43
Selenium, Total Recoverable (All-weather)	µg/L	8.2	29	3.8
Zinc, Total Recoverable (All-weather)	µg/L	184	420	200

1 These effluent limitations were prescribed in Order No. R4-2013-0021.
2 Interim maximum daily effluent limitations are effective from February 7, 2013 to February 7, 2018 during the effective period of Time Schedule Order No. R4-2013-0022 and its amendment, TSO No. R4-2013-0022-A01.
3 Instantaneous minimum and maximum range.
4 Range of reporting data.
5 Instantaneous maximum.
6 Detected, but not quantified (DNQ) value. The result was an estimated value as it is detected greater than the method detection limit (MDL), but less than the minimum level (ML).
7 The acute toxicity of the effluent shall be such that:
  i. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, and
  ii. No single test shall produce less than 70% survival.
8 Lowest survival of any single test.

Table F-2b. Historic Effluent Limitations and Monitoring Data – Discharge Point 002

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
pH	s.u.	6.5 – 8.5[3]	--	6.6 – 8.35[4]

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
Temperature	°F	86[5]	--	75.1
Biochemical Oxygen Demand (5-day@20^{0}C) (BOD)	mg/L	30	--	11.8
Oil and Grease	mg/L	15	--	1.3[6]
Phenols	mg/L	1.0	--	ND (<0.025)
Acute Toxicity	% survival	[7]		93[8]
Mercury, Total Recoverable (All-weather)	µg/L	0.10	--	ND (<0.1)
Copper , Total Recoverable (Dry-weather)	µg/L	39	--	21.8
Lead, Total Recoverable (Dry-weather)	µg/L	21	--	3.9
Selenium, Total Recoverable (Dry-weather)	µg/L	8.2	--	ND (<2)
Zinc, Total Recoverable (Dry-weather)	µg/L	498	--	308
Copper , Total Recoverable (Wet-weather)	µg/L	18	30	57
Lead, Total Recoverable (Wet-weather)	µg/L	59	--	43
Selenium, Total Recoverable (Wet-weather)	µg/L	5.0	--	5.2
Zinc, Total Recoverable (Wet-weather)	µg/L	119	--	190

1 These effluent limitations were prescribed in Order No. R4-2013-0021.
2 Interim maximum daily effluent limitations are effective from February 7, 2013 to February 7, 2018 during the effective period of Time Schedule Order No. R4-2013-0022 and its amendment, TSO No. R4-2013-0022-A01.
3 Instantaneous minimum and maximum range.
4 Range of reporting data.
5 Instantaneous maximum.
6 Detected, but not quantified (DNQ) value. The result was an estimated value as it is detected greater than the method detection limit (MDL), but less than the minimum level (ML).
7 The acute toxicity of the effluent shall be such that:
   i. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, and
   ii. No single test shall produce less than 70% survival.
8 Lowest survival of any single test.

Table F-2c. Historic Effluent Limitations and Monitoring Data – Discharge Point 003

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
pH	s.u.	6.5 – 8.5[3]	--	7.7 – 8.6[4]

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
Temperature	°F	86[5]	--	62
Biochemical Oxygen Demand (5-day@20^{0}C) (BOD)	mg/L	30	--	8.6
Oil and Grease	mg/L	15	--	1.3[6]
Phenols	mg/L	1.0	--	0.031[6]
Acute Toxicity	% survival	[7]		95[8]
Copper , Total Recoverable (All-weather)	µg/L	23	30	48
Lead, Total Recoverable (All-weather)	µg/L	9.9	23	37
Selenium, Total Recoverable (All-weather)	µg/L	8.2	46	ND (<2)

1 These effluent limitations were prescribed in Order No. R4-2013-0021.
2 Interim maximum daily effluent limitations are effective from February 7, 2013 to February 7, 2018 during the effective period of Time Schedule Order No. R4-2013-0022 and its amendment, TSO No. R4-2013-0022-A01.
3 Instantaneous minimum and maximum range.
4 Range of reporting data.
5 Instantaneous maximum.
6 Detected, but not quantified (DNQ) value. The result was an estimated value as it is detected greater than the method detection limit (MDL), but less than the minimum level (ML).
7 The acute toxicity of the effluent shall be such that:
i. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, and
ii. No single test shall produce less than 70% survival.
8 Lowest survival of any single test.

Table F-2d. Historic Effluent Limitations and Monitoring Data – Discharge Point 004

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
pH	s.u.	6.5 – 8.5[3]	--	7.4[4]
Temperature	°F	86[5]	--	58[4]
Biochemical Oxygen Demand (5-day@20^{0}C) (BOD)	mg/L	30	--	3.7[4]
Oil and Grease	mg/L	15	--	1.3 [4, 6]
Phenols	mg/L	1.0	--	ND (<0.025)[4]
Acute Toxicity	% survival	[7]		68 [4, 8]
Copper , Total Recoverable (Dry-weather)	µg/L	39	--	3.8[4]
Lead, Total Recoverable (Dry-weather)	µg/L	21	--	ND (<1)[4]

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
Selenium, Total Recoverable (Dry-weather)	µg/L	8.2	26	2[4]
Zinc, Total Recoverable (Dry-weather)	µg/L	498	--	15.3[4]
Copper , Total Recoverable (Wet-weather)	µg/L	18	--	NR
Lead, Total Recoverable (Wet-weather)	µg/L	59	--	NR
Selenium, Total Recoverable (Wet-weather)	µg/L	5.0	--	NR
Zinc, Total Recoverable (Wet-weather)	µg/L	119	--	NR

NR = Not Reported. There is no dry-weather discharge during the reporting period.

1 These effluent limitations were prescribed in Order No. R4-2013-0021.

2 Interim maximum daily effluent limitations are effective from February 7, 2013 to February 7, 2018 during the effective period of Time Schedule Order No. R4-2013-0022 and its amendment, TSO No. R4-2013-0022-A01.

3 Instantaneous minimum and maximum range.

4 There is only one discharge event during the reporting period. The reported data show the results of the only monitoring event occurred on February 7, 2017.

5 Instantaneous maximum.

6 Detected, but not quantified (DNQ) value. The result was an estimated value as it is detected greater than the method detection limit (MDL), but less than the minimum level (ML).

7 The acute toxicity of the effluent shall be such that:

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

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

8 Lowest survival of any single test.

Table F-2e. Historic Effluent Limitations and Monitoring Data – Discharge Point 005

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
pH	s.u.	6.5 – 8.5[3]	--	NR
Temperature	°F	86[4]	--	NR
Biochemical Oxygen Demand (5-day@20^{0}C) (BOD)	mg/L	30	--	NR
Oil and Grease	mg/L	15	--	NR
Phenols	mg/L	1.0	--	NR
Acute Toxicity	% survival	[5]		NR
Copper , Total Recoverable (Dry-weather)	µg/L	39	--	NR
Lead, Total Recoverable (Dry-weather)	µg/L	21	--	NR
Selenium, Total Recoverable (Dry-weather)	µg/L	8.2	10	NR

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
Zinc, Total Recoverable (Dry-weather)	µg/L	498	--	NR
Copper , Total Recoverable (Wet-weather)	µg/L	18	33	NR
Lead, Total Recoverable (Wet-weather)	µg/L	59	--	NR
Selenium, Total Recoverable (Wet-weather)	µg/L	5.0	10	NR
Zinc, Total Recoverable (Wet-weather)	µg/L	119	--	NR

NR = Not Reported. There is no discharge during the reporting period.
1 These effluent limitations were prescribed in Order No. R4-2013-0021.
2 Interim maximum daily effluent limitations are effective from February 7, 2013 to February 7, 2018 during the effective period of Time Schedule Order No. R4-2013-0022 and its amendment, TSO No. R4-2013-0022-A01.
3 Instantaneous minimum and maximum range.
4 Instantaneous maximum.
5 The acute toxicity of the effluent shall be such that:
i. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, and
ii. No single test shall produce less than 70% survival.

Table F-2f. Historic Effluent Limitations and Monitoring Data – Discharge Point 006

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
pH	s.u.	6.5 – 8.5[3]	--	6.9 – 8.65[4]
Temperature	°F	86[5]	--	68
Biochemical Oxygen Demand (5-day@20^{0}C) (BOD)	mg/L	30	--	5.1
Oil and Grease	mg/L	15	--	2.3[6]
Phenols	mg/L	1.0	--	ND (<0.025)
Cyanide	µg/L	8.5	--	ND (<10)
Acute Toxicity	% survival	[7]		87[8]
Mercury, Total Recoverable (All-weather)	µg/L	0.10	--	0.2
Copper , Total Recoverable (Dry-weather)	µg/L	39	61	NR
Lead, Total Recoverable (Dry-weather)	µg/L	21	49	NR
Selenium, Total Recoverable (Dry-weather)	µg/L	8.2	25	NR
Zinc, Total Recoverable (Dry-weather)	µg/L	498	--	NR

Parameter	Units	Effluent Limitations		Maximum Daily of Reported Data (March 2013 through August 2017)
		Maximum Daily[1]	Interim Maximum Daily[2]	
Copper , Total Recoverable (Wet-weather)	µg/L	18	61	110
Lead, Total Recoverable (Wet-weather)	µg/L	59	--	94
Selenium, Total Recoverable (Wet-weather)	µg/L	5.0	25	3.8
Zinc, Total Recoverable (Wet-weather)	µg/L	119	190	380

NR = Not Reported. There is no dry-weather discharge during the reporting period.

1 These effluent limitations were prescribed in Order No. R4-2013-0021.

2 Interim maximum daily effluent limitations are effective from February 7, 2013 to February 7, 2018 during the effective period of Time Schedule Order No. R4-2013-0022 and its amendment, TSO No. R4-2013-0022-A01.

3 Instantaneous minimum and maximum range.

4 Range of reporting data.

5 Instantaneous maximum.

6 Detected, but not quantified (DNQ) value. The result was an estimated value as it is detected greater than the method detection limit (MDL), but less than the minimum level (ML).

7 The acute toxicity of the effluent shall be such that:

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

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

8 Lowest survival of any single test.

D. Compliance Summary

Based on data submitted to the Regional Water Board from March 2013 through August 2017, the Discharger has the following violations of numeric permit limitations:

Table F-3. Summary of Compliance History

Date Occurred	Monitoring Period	Discharge Point	Violations Type	Pollutant	Reported Value	Permit Limitation*	Units
02/28/2014	1st Quarter 2014	003	Instantaneous Maximum	pH	8.6	8.5	s.u.
02/28/2014	1st Quarter 2014	006	Instantaneous Maximum	pH	8.65	8.5	s.u.
02/28/2014	1st Quarter 2014	001	Daily Maximum	Copper, Total Recoverable	58	41 (Interim limit)	µg/L
02/28/2014	1st Quarter 2014	001	Daily Maximum	Lead, Total Recoverable	43	26 (Interim limit)	µg/L
02/28/2014	1st Quarter 2014	002	Daily Maximum	Zinc, Total Recoverable	190	119	µg/L
02/28/2014	1st Quarter 2014	002	Daily Maximum	Copper, Total Recoverable	57	30 (Interim limit)	µg/L
02/28/2014	1st Quarter 2014	003	Daily Maximum	Lead, Total Recoverable	37	23 (Interim limit)	µg/L
02/28/2014	1st Quarter 2014	003	Daily Maximum	Copper, Total Recoverable	48	30 (Interim limit)	µg/L
02/28/2014	1st Quarter 2014	006	Daily Maximum	Mercury, Total Recoverable	0.2	0.1	µg/L
02/28/2014	1st Quarter 2014	006	Daily Maximum	Lead, Total Recoverable	94	59	µg/L

Date Occurred	Monitoring Period	Discharge Point	Violations Type	Pollutant	Reported Value	Permit Limitation*	Units
02/28/2014	1st Quarter 2014	006	Daily Maximum	Zinc, Total Recoverable	380	190	µg/L
09/15/2015	3rd Quarter 2015	001	Daily Maximum	Copper, Total Recoverable	43.4	41 (Interim limit)	µg/L
09/15/2015	3rd Quarter 2015	002	Daily Maximum	Copper, Total Recoverable	48.8	30 (Interim limit)	µg/L
09/15/2015	3rd Quarter 2015	002	Daily Maximum	Zinc, Total Recoverable	154	119	µg/L
02/20/2017	1st Quarter 2017	004	% survival	Acute Toxicity	68	70	%

* Interim limitations were established in TSO No. R4-2013-0022 and its amendment.

The Regional Water Board issued Settlement Offers R4-2015-0002 and R4-2016-0298 on January 7, 2015 and October 14, 2016, respectively, to address the violations listed above (but excluding the acute toxicity limit violation that occurred on February 20, 2017). The Discharger agreed to these Settlement Offers and delivered to the Regional Water Board signed letters of Acceptance of Conditional Resolution and Waiver of Right to Hearing. The required mandatory minimum penalties in the amount of $21,000 and $3,000 were received by the Regional Water Board on April 20, 2015 and December 28, 2016, respectively. Enforcement action is pending with regard to the acute toxicity limit violation that was not included in Settlement Offer R4-2016-0298.

The Facility was issued Time Schedule Order (TSO) R4-2013-0022 on February 7, 2013, because monitoring data indicated that the Facility could not consistently comply with the final effluent limitations for copper, lead, selenium and zinc at Discharge Points 001 through 006 as prescribed in Order R4-2013-0021. The TSO established interim effluent limitations and it required the Facility to undertake several tasks to achieve full compliance with the final effluent limitations as specified in Order R4-2013-0021. The Discharger has completed all of the requirements of this TSO. During the TSO implementation period, the Discharger discovered that the BMPs and other Facility modifications would not provide the level of treatment required to achieve compliance with the final effluent limitations. Per the Discharger's request, the Regional Water Board issued an amendment (TSO No. R4-2013-0022-A01) to Time Schedule Order No. R4-2013-0022 on September 15, 2016. This TSO amendment provides one-and-a-half years for the design, initial implementation, and installation of the storm water treatment systems at each retention basin. The TSO amendment will expire on February 7, 2018.

E. Planned Changes

The Discharger will evaluate the effectiveness of the storm water treatment components and install an appropriate storm water treatment system at each retention basin.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as

an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

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

1. **Water Quality Control Plan.** Under federal law, all surface waters must have water quality standards designated in the Basin Plans, and most of the inland surface waters in the Region have beneficial uses specifically designated for them. 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 Basin Plan. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Requirements in this Order implement the Basin Plan.

   The Basin Plan does not currently assign beneficial uses specific to the Centinela Creek. However, the Basin Plan states that "*waters not specifically listed (generally smaller tributaries), are designated with the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary."* Moreover, federal regulations that address state water quality standards are contained in 40 C.F.R. sections 131.2 and 131.10 and constitute a rebuttable presumption that beneficial uses supporting the *"fishable, swimmable"* goals of the federal CWA are attainable. In this case, there is no evidence to disprove attainability, and therefore recreation and aquatic life beneficial uses apply to the Centinela Creek. Because the Centinela Creek is a tributary of the Ballona Creek, the Regional Water Board finds that the beneficial uses identified in the Basin Plan for the Ballona Creek (Reach 2) are applicable to Centinela Creek. Furthermore, these beneficial uses support the "*fishable, swimmable"* goals of the CWA. Beneficial uses identified in the Basin Plan for Ballona Creek Reach 2 are as follows:

Table F-4. Basin Plan Beneficial Uses

Discharge Points	Receiving Water Name	Beneficial Use(s)
002, 004, 005 and 006	Ballona Creek Reach 2 (Estuary to National Blvd) (WBD No. 180701040300)	Existing: Limited water contact recreation (LREC-1), non-contact recreation (REC-2). Potential: Municipal and domestic water supply (MUN) [1], warm freshwater habitat (WARM), water contact recreation (REC-1) [2] and wildlife habitat (WILD).
001 and 003	Centinela Creek, A tributary to Ballona Creek	Same as above.

[1] MUN designations are designated under State Water Board Resolution 88-63 and Regional Water Board Resolution 89-03. Some designations may be considered for exemption at a later date (See pages 2-3, 4 of the Basin Plan for more details).

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

2. **High Flow Suspension.** On July 10, 2003, the Regional Water Board adopted Resolution No. 2003-010 (High Flow Suspension) to suspend recreational beneficial uses in

engineered channels during unsafe weather conditions. The High Flow Suspension became effective on November 2, 2004. The High Flow Suspension applies to 1) water contact recreational activities associated with the swimmable goal as expressed in the federal Clean Water Act section 101(a)(2) and regulated under the REC-1 beneficial use, 2) non-contact water recreation involving incidental water contact regulated under the REC-2 beneficial use, and 3) associated bacteriological objectives set to protect those activities. Water quality objectives set to protect other recreational uses associated with the fishable goal as expressed in the federal CWA section 101(a)(2) and regulated under the REC-1 use, and other REC-2 uses (e.g., uses involving the aesthetic aspects of water) shall remain in effect at all times. The High Flow Suspension shall apply on days with rainfall greater than or equal to ½ inch and the 24 hours following the end of the ½-inch or greater rain event, as measured at the nearest local rain gage, using local Doppler radar, or using widely accepted rainfall estimation methods. The High Flow Suspension is applicable to Ballona Creek Reach 2 (Estuary to National Blvd).

3. **Thermal Plan.** The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on January 7, 1971, 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 aquatic species routinely available in surface water bodies within the Los Angeles Region including: steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. A maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life and is included in this Order.

4. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA 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, U.S. EPA 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 federal 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 U.S. EPA 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 U.S. EPA 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. **Antidegradation Policy.** Federal regulation 40 C.F.R. 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 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 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 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

7. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict 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.

8. **Endangered Species Act Requirements.** 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, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 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, including protecting rare, threatened, or endangered species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

9. **Trash Provisions.** The State Water Board adopted the "*Amendment to the Ocean Plan and Part I Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*" (Trash Amendments) through Resolution 2015-0019, which was approved by OAL on December 2, 2015 and became effective upon U.S. EPA approval on January 12, 2016. The Trash Amendments established a narrative water quality objective for trash and a prohibition of the discharge of trash, implemented through permits issued pursuant to CWA section 402(p), waste discharge requirements, or waivers of waste discharge requirements.

   The Trash Amendments apply to all surface waters of the State, with the exception of those waters within the jurisdiction of the Los Angeles Regional Water Board where trash or debris TMDLs are in effect prior to the effective date of the Trash Amendments. The Ballona Creek Trash TMDL was effective prior to the effective date of the Trash Amendments. However, the Ballona Creek Trash TMDL did not include any waste load allocations for minor NPDES permittees. As such, this Order implements the requirements of the Trash Provisions through the prohibition of trash discharges. This Order requires the Discharger to develop and implement an updated Storm Water Pollution Prevention Plan (SWPPP), which shall include specific BMPs used as storm water control measures that the Discharger will undertake to prevent the discharge of trash from the Facility to the Ballona Creek or the Centinela Creek. The Discharger is required to detail and submit to the Regional Water Board the updated SWPPP.

10. **Mercury Provisions.** The State Water Board adopted "Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California- Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions" (Mercury Provisions) through Resolution 2017-0027, which was approved by OAL on June 28, 2017 and became effective upon U.S. EPA approval on July 14, 2017. The Mercury Provisions established one narrative and four numeric water quality objectives for mercury and three new beneficial use definitions, implemented through NPDES permits issued pursuant to CWA section 402, waste discharge requirements, or waivers of waste discharge requirements. The Mercury Provisions are applicable to this Facility as the Ballona Creek Reach 2 has potential beneficial uses of Warm and Wild, and there is currently no TMDL or site specific objectives for mercury in Ballona Creek Reach 2. The Mercury Provisions included implementation requirements for individual non-storm water NPDES permits for

municipal and industrial dischargers; storm water discharges including the Municipal Separate Storm Sewer System (MS4) NPDES Permit and the General Permit for Storm Water Discharges Associated with Industrial Activities (Order NPDES No. CAS000001); mine site remediation; nonpoint source discharges; dredging activities; and wetland projects.

The Provisions did not prescribe specific implementation provisions for individual industrial permittees that discharge storm water only. However, requirements for mercury included in this Order is at least as stringent as and is consistent with the requirements included in the Provisions for industrial storm water dischargers regulated under the Industrial General Permit. The type of discharges regulated under the Industrial General Permit is similar to the Facility's discharge as the Facility also discharges storm water only from an industrial site. The Provisions for industrial storm water permittees regulated under the Industrial General Permit includes a revision to the mercury numeric action level (NAL) to 0.3 µg/L (300 ng/L) or lower. This Order establishes a water-quality based effluent limitation (WQBELs) for mercury expressed as a maximum daily effluent limitation of 0.1 µg/L (100 ng/L) for the protection of the human health criterion in the CTR, based on the presence of reasonable potential for mercury with consideration of effluent monitoring data submitted by the Discharger during the term of Order No. R4-2013-0021 (See section IV.C.3 of this Fact Sheet). Therefore, in achieving compliance with the mercury effluent limitation prescribed in this Order, the Discharger will be held to a treatment level that is at least as stringent as and comparable to that required of other industrial storm water dischargers in the Region. Compliance with the permit limitation will protect the mercury objectives set forth in the Provisions, and thus satisfy the requirement of the Mercury Provisions for industrial storm water discharges.

D. Impaired Water Bodies on the CWA section 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 CWA section 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.

U.S. EPA approved the State's 2012 303(d) list of impaired water bodies on June 26, 2015. 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 303(d) List of Water Quality Limited Segments (hereinafter 303(d) list) and have been scheduled for TMDL development. Ballona Creek is listed for coliform bacteria, copper (dissolved), cyanide, lead, selenium, toxicity, trash, virus (enteric) and zinc. The downstream, Ballona Creek Estuary, is listed for cadmium, chlordane (tissue & sediment), coliform bacteria, copper, DDT (tissue &sediment), lead (sediment), PAHs (sediment), PCBs (tissue & sediment), sediment toxicity, shellfish harvesting advisory, silver and zinc (sediment). The Ballona Creek Wetlands are listed for exotic vegetation, habitat alterations, hydromodification, reduced tidal flushing and trash.

Coliform bacteria, copper (dissolved), lead, selenium, toxicity, trash, virus (enteric) and zinc are addressed through TMDLs as detailed below. The TMDL to address cyanide is scheduled for completion by 2019.

1. **Ballona Creek Metals TMDL.** The TMDL for metals in Ballona Creek was approved by the Regional Water Board on July 7, 2005 (Resolution NO. R05-007). The State Water Board approved the TMDL on October 20, 2005; OAL and U.S. EPA approvals were received on December 9, 2005 and December 22, 2005, respectively. The TMDL was subsequently amended by Resolutions No. R2007-015 that was adopted by the Regional

Water Board on September 6, 2007. State Water Board, OAL, and U.S. EPA approval occurred on June 17, 2008, October 6, 2008, and October 29, 2009, respectively. A recently revised metals TMDL, Resolution No. R13-010, was adopted by the Regional Water Board on December 5, 2013; State Water Board, OAL and U.S. EPA approvals were received on June 17, 2014, May 5, 2015 and October 26, 2015, respectively. It became effective on October 26, 2015. This revised metals TMDL designates WLAs for point sources to Ballona Creek.

The discharge from the Inglewood Oil Field has been classified as a major discharge on the basis of the number of points accumulated using the NPDES Permit Rating Work Sheet.

The Ballona Creek Metals TMDL includes specific WLAs for some of the major dischargers, the Los Angeles and the State of California Department of Transporation (CalTrans) MS4 permittees. However, no site specific WLA has been designated for the Inglewood Oil Field in the TMDL. In Attachment A to Resolution No. R13-010, on Page 5 in the section Waste Load Allocations (for point sources), paragraph 1 reads "Waste load allocations (WLA) are assigned to point sources for Ballona Creek and Sepulveda Canyon Channel. A grouped mass-based waste load allocation is developed for the storm water permittees (Los Angeles County MS4 permittees, Caltrans MS4 permittees, General Construction and General Industrial) by subtracting the load allocation from the total loading capacity. Concentration-based waste load allocations are developed for other point sources in the watershed." Inglewood Oil Field is a point source to Ballona Creek, one of the other point sources in the watershed which is referenced. Hence, the Facility requires an effluent limit developed using the appropriate WLA. The TMDL includes concentration-based dry-weather and wet weather WLA for other permits discharging to Ballona Creek. These concentration-based WLAs have been used to develop effluent limits for discharges from the Inglewood Oil Field. This permit implements the applicable WLAs as required in the TMDL, by applying the effluent limitation calculations provided in Section 1.4 of the SIP. Concentration-based WLAs were established for copper, lead and zinc for Discharge Point No. 002, 004, 005, and 006. This Metals TMDL for Ballona Creek is not applicable to the discharges to Centinela Creek because Centinela Creek is not listed as impaired for the targeted constituents and it flows into Ballona Creek Estuary.

2. **Ballona Creek Bacteria TMDL.** The Ballona Creek Bacteria TMDL was approved by the Regional Water Board on June 8, 2006 (Resolution NO. 2006-011). The State Water Board approved the TMDL on November 15, 2006; OAL and U.S. EPA approvals were received on February 22, 2007, and March 26, 2007, respectively. The TMDL was subsequently amended by Resolutions No. R12-008 that was adopted by the Regional Water Board on June 7, 2012. State Water Board, and OAL, approval occurred on March 19, 2013 and November 8, 2013, respectively. It became effective on July 2, 2014 upon the approval by U.S. EPA. This Bacteria TMDL will be implemented through the Los Angeles County Municipal Storm Water NPDES Permit (MS4), the Caltrans Storm Water Permit, any future Phase II MS4 permits, general NPDES permits, general industrial storm water permits, general construction storm water permits, and the authority contained in Sections 13263, 13267, and 13383. There are no WLA assigned to individual NPDES permittees. This permit requires bacterial monitoring of the effluent to ensure that the discharges do not cause or contribute to exceedances of bacteria loads in the receiving waters.

3. **Ballona Creek Trash TMDL.** The Ballona Creek Trash TMDL was adopted by the Regional Water Board on September 9, 2001. The TMDL established a numeric target of zero trash in Ballona Creek. The TMDL was to be implemented via storm water permits in a phased reduction for a period of 10 years. The Ballona Creek Trash TMDL was

approved by the State Water Board on February 19, 2002, the OAL on July 18, 2002, and by U.S. EPA on August 1, 2002. The TMDL became effective on August 28, 2002. The Regional Water Board made minor revisions to the TMDL and the Revised Ballona Creek Trash TMDL was adopted by the Regional Water Board on March 4, 2004 (Resolution No. 2004-0023). The State Water Board approved the TMDL on September 30, 2004 and OAL approved it on February 8, 2005. The Ballona Creek Trash TMDL became effective on August 11, 2005. The Ballona Creek Trash TMDL was further revised by the Regional Water Board on June 11, 2015 (Resolution No. R15-006). The State Water Board and OAL approved it on November 17, 2015, and May 4, 2016, respectively. It became effective upon approval by U.S. EPA on June 30, 2016. This Trash TMDL will be implemented through the LA County MS4 Permit and the Caltrans MS4 Permit.

This permit requires an updated SWPPP that shall include best management practices to prevent hazardous waste/material and trash from being discharged to waters of the United States. The appropriate implementation and maintenance of the best management practices will ensure that trash is not discharged from the Facility to Ballona Creek.

4. **Ballona Creek Estuary Toxic Pollutants TMDL.** The Ballona Creek Estuary Toxic Pollutants TMDL was approved by the Regional Water Board on July 7, 2005 (Resolution No. R05-008). The State Water Board approved the TMDL on October 20, 2005; OAL and U.S. EPA approvals were received on December 9, 2005, and December 22, 2005, respectively. This TMDL became effective on January 11, 2006. The TMDL was amended by Resolution No. R13-010 that was adopted by the Regional Water Board on December 5, 2013; State Water Board, and OAL approvals were received on June 17, 2014, and May 5, 2015, respectively. The revised TMDL became effective on October 26, 2015 upon approval by U.S. EPA. This Toxic Pollutants TMDL assigned concentration-based WLAs for pollutants concentrations in sediments for cadmium, copper, lead, silver, zinc, chlordane, DDTs, and total PCBs in the minor NPDES permits that regulate discharges to Ballona Creek or its tributaries. A WLA for total PAHs is not included in the revised TMDL because recent data indicate that PAHs are not present at levels exceeding existing numeric targets. This permit implements the applicable WLAs as required in this TMDL.

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 (C.F.R.). 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. 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.

Discharges from the Facility are primarily storm waters collected in six retention basins. Storm water runoff from the Facility could pick up solids, oil and grease-based compounds, and constituents contributing to biochemical oxygen demand (BOD). Further, total suspended solids (TSS), settleable solids, turbidity, oil and grease, pH, and BOD are pollutants typically used to characterize storm water discharges; therefore, these pollutants are considered pollutants of concern for discharges from the Facility. Since the Facility is an actively producing oil and gas field and monitoring data reported in the last permit term indicated the presence of total petroleum hydrocarbons (TPH) in the effluents, TPHs are also a pollutant of concern. In addition, the list of pollutants of concern includes constituents that were detected in the effluent and that are regulated in the Basin Plan, CTR or TMDLs.

Pursuant to 40 C.F.R. section 122.45(d), permit limitations for continuous discharges shall be expressed, unless impracticable, as both average monthly effluent limitations (AMELs) and maximum daily effluent limitations (MDELs). However, discharges through Discharge Points 001 through 006 consist of storm water only. They are intermittent and of short duration. Therefore, consistent with Order No. R4-2013-0021, only MDELs are included to ensure protection of the beneficial uses in the receiving waters.

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. Section 122.45(f)(1) requires that all permit limitations, standards or prohibitions be expressed in terms of mass units except under the following conditions: (1) for pH, temperature, radiation or other pollutants that cannot appropriately be expressed by mass limitations; (2) when applicable standards or limitations are expressed in terms of other units of measure; or (3) if in establishing technology-based permit limitations on a case-by-case basis limitations based on mass are infeasible because the mass of 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 enumerated in section III of the Waste Discharge Requirements of this Order are based on the requirements of the Basin Plan, State Water Board's plans and policies, the Water Code, federal law, and previous permit provisions. They are consistent with the requirements set for other discharges to the Ballona Creek that are regulated by NPDES permits.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 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 40 C.F.R. 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 existing performance by well-operated facilities 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 a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such

pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

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 U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 C.F.R. section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Regional Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Technology-Based Effluent Limitations (TBELs)

Currently, no numeric technology-based ELGs exist for storm water runoff from an oil and gas field. 40 C.F.R. section 435.32, the Onshore Subcategory of the Oil and Gas Extraction Point Source Category, includes requirements that are applicable to facilities engaged in the production, field exploration, drilling, well completion and well treatment in the onshore oil and gas extraction industry. 40 C.F.R. section 435.2 includes effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT). It specifies "Except as provided in §§ 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by application of the best practicable control technology currently available (BPT): there shall be no discharge of waste water pollutants into navigable waters from any source associated with production, field exploration, drilling, well completion, or well treatment (i.e., produced water, drilling muds, drill cuttings, and produced sand)." This Order does not permit the discharge of any waste water from onsite operations. The permitted discharge consists solely of storm water runoff from the site. The technology-based requirements in this Order are based on case-by-case numeric limitations developed using BPJ in accordance with 40 C.F.R. section 125.3. Technology-based effluent limitations as MDELs were established in Order No. R4-2013-0021 for biochemical oxygen demand (BOD), oil and grease, and phenols. As described below in section VI.D.1., this Order retains TBELs for BOD and oil and grease, but the TBELs for phenols have been removed consistent with antibacksliding requirements. In addition, MDELs were also established for settleable solids, turbidity and TPH based on BPJ because they are pollutants of concern for these types of discharges. These limitations are consistent with effluent limitations included in other Orders within the State for similar types of discharges and compliance with these limitations is not expected to require additional equipment as a storm water treatment system will be installed at each Discharge Point within the Field.

The current Order (R4-2013-0021) required the Discharger to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). This Order requires the Discharger to update and continue to implement the SWPPP. The revised SWPPP will reflect current operations, treatment activities, and staff responsible for implementing and supporting the SWPPP. The SWPPP will outline site-specific management processes for minimizing storm water contamination and for preventing contaminated storm water from being discharged directly into the storm drain. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water. The SWPPP shall also outline management practices to eliminate the discharge of trash entrained in storm water discharged from the Facility. This Order requires the SWPPP be consistent with requirements in Attachment G.

This Order requires the Discharger to update and continue to implement a Best Management Practices Plan (BMPP) which may be included in the SWPPP. 40 C.F.R. section 122.44(k) requires that permits include best management practices when reasonably necessary to achieve the effluent limitations and standards or to carry out the purpose and intent of the CWA. Consistent with 40 C.F.R. Part 122.44(k), this Order requires the Discharger to update and continue to implement a BMPP. The purpose of the BMPP is to establish site-specific procedures that minimize the potential to discharge hazardous waste/materials and other contaminates including trash to surface waters.

The BMPP shall be consistent with the general guidance contained in the U.S. EPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). The BMPP shall cover all areas of the Facility and shall include an updated drainage map for the Facility. Further, the BMPP shall identify on a map of appropriate scale the areas that generate effluent and runoff at the permitted discharge points; describe the activities in each area, the potential for contamination of the effluent and storm water. The BMPP shall also identify the responsible individuals for the implementation of the BMPP by name, job title, job duties, and phone number.

An up-to-date SWPPP shall be submitted to the Regional Water Board within 90 days of the effective date of this Order. The SWPPP shall be reviewed annually and at the same time each year. Revisions of the SWPPP shall be submitted to the Regional Water Board within 30 days of any change.

This Order also requires the Discharger to update and continue to implement their Spill Prevention Control and Countermeasure (SPCC) Plan.

The combination of the SWPPP, BMPP, SPCC Plan, and permit 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.

A summary of the numeric technology-based effluent limitations is provided in Table F-5.

Table F-5. Technology-based Effluent Limitations for Discharge Points 001 through 006

Parameter	Units	Effluent Limitations
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	30
Oil and Grease	mg/L	15
Settleable Solids	ml/L	0.3
Total Petroleum Hydrocarbons (TPH)*	µg/L	100
Turbidity	NTU	75

*. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}). The limitation was based on the taste and order threshold of 100 µg/L for diesel in the 1980 U.S. EPA Suggested-No-Adverse-Response Level.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 C.F.R. section 122.44(d)(1)(i) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to

cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) U.S. EPA 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). WQBELs must also be consistent with the assumption and requirements of TMDL WLAs approved by U.S. EPA.

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated beneficial 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, Section 3.3.8 of 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. Hence, in this Order, the Regional Water Board has used the SIP methodology to evaluate reasonable potential for storm water discharges through Discharge Points 001 through 006.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As noted in section III of the Fact Sheet, 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 Ballona Creek Reach 2 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 Ballona Creek as well as Centinela 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 Regional Water Board has determined that freshwater criteria applies to the Ballona Creek Reach 2. 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 Ballona Creek Reach 2 and Centinela Creek, waters of the United States.

Some water quality criteria are hardness dependent. The Discharger is required to monitor the hardness of the receiving waters (Ballona Creek and Centinela Creek). The Discharger reported six (6) wet-weather hardness results (82, 82.1, 108, 22.6, 48.8, 59.2) and four (4) dry-weather hardness results (182, 151, 185, 204) at Centinela Creek monitoring station, RSW-004, during the last permit term. From November 2015 to December 2016, the City of Los Angeles, on behalf of the Ballona Creek Watershed

Management Group, reported fourteen (14) hardness data results including nine (9) dry-weather (261, 188, 250, 334, 405, 312, 460, 439, 213) and five (5) wet-weather (53.4, 30.6, 26.3, 41.6, 17.2) at Centinela Creek monitoring station, CC-CEN. In order to ensure adequate protection of the receiving water, a hardness value (as $CaCO_3$) of 166.5 mg/L, which is the 50 percentile hardness value of the reported twenty four (24) hardness data, was used for the evaluation of reasonable potential for discharges to Centinela Creek (Discharge Points 001 and 003) from the Facility.

The following table summarizes the applicable water quality criteria/objective for priority pollutants reported in detectable concentrations in the effluents from Discharge Points 001 and 003. These criteria were used to complete the RPA for Discharge Points 001 and 003.

Table F-6. Applicable Water Quality Criteria for Discharge Points 001 and 003

CTR No.	Constituent	Selected (Lowest) Criteria	CTR Water Quality Criteria			
			Freshwater		Human Health for Consumption of:	
			Acute	Chronic	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L
1	Antimony	4,300	--	--	N/A	4,300
2	Arsenic	150	340	150		--
3	Beryllium	No criteria	--	--		--
4	Cadmium*	3.67	8.03	3.67		--
5a	Chromium (III)*	314	2836	314		Narrative
5b	Chromium (VI)	11	16	11		--
6	Copper*	14.42	22.63	14.42		---
7	Lead*	6.09	156.24	6.09		Narrative
8	Mercury	0.051	--	--		0.051
9	Nickel*	80.29	722	80.29		4,600
10	Selenium	5	--	5		Narrative
13	Zinc*	185	185	185		---
14	Cyanide	5.2	22	5.2		220,000
68	Bis(2-Ethylhexyl)Phthalate	5.9	--	--		5.9

Metal concentrations are expressed as total recoverable

'N/A' indicates the water quality criteria for the protection of human health for the consumption of water and organisms are not applicable.

* For these metals, the CTR criteria are based on a hardness value (as $CaCO_3$) of 166.5 mg/L.

Ballona Creek Metals TMDL. This metals TMDL were amended on December 5, 2013, Resolution No. R13-010, and it became effective on October 26, 2015. The discharge from the Inglewood Oil Field has been classified as a major discharge because the permitted discharge flow (7.55 MGD) exceeds the threshold of one (1) MGD. The Ballona Creek Metals TMDL includes specific WLAs for some of the major dischargers, the MS4 permittees and CalTrans. However, no site specific WLA has been designated for the Inglewood Oil Field in the TMDL. In Attachment A to Resolution No. R13-010, on Page 5 in the section Waste Load Allocations (for point sources), paragraph 1 reads "Waste load allocations (WLA) are assigned to point sources for Ballona Creek and Sepulveda Canyon Channel. A grouped mass-based waste load allocation is developed for the storm water permittees (Los Angeles County MS4, Caltrans, General Construction and General

Industrial) by subtracting the load allocation from the total loading capacity. Concentration-based waste load allocations are developed for other point sources in the watershed." Inglewood Oil Field is a point source to Ballona Creek, one of the other point sources in the watershed which is referenced. Hence, the Facility requires an effluent limit developed using the appropriate WLA. The TMDL includes concentration-based dry-weather and wet weather WLA for other permits discharging to Ballona Creek. These concentration-based WLAs have been used to develop effluent limits for discharges from the Inglewood Oil Field. This permit implements the applicable WLAs as required in the TMDL, by applying the effluent limitation calculations provided in Section 1.4 of the SIP. Concentration-based WLAs for copper, lead, and zinc are applicable to discharges from Discharge Points 002, 004, 005, and 006 that enter Ballona Creek. This Metals TMDL for Ballona Creek is not applicable to the discharges to Centinela Creek because Centinela Creek is not listed as impaired for the targeted constituents and it flows into Ballona Creek Estuary.

The following table summarizes the dry and wet weather WLAs for copper, lead, and zinc included in the Ballona Creek TMDL that are applicable to the Facility's discharge through Discharge Points 002, 004, 005 and 006 to Ballona Creek Reach 2.

Table F-7. Applicable TMDL Waste Load Allocations for Discharge Points 002, 004, 005 and 006

Parameter	Units	Waste Load Allocation	
		Dry-Weather	Wet-Weather
Copper, Total Recoverable	µg/L	35.56	13.70
Lead, Total Recoverable	µg/L	19.65	76.75
Zinc, Total Recoverable	µg/L	446.55	104.77

Ballona Creek Estuary Toxic Pollutants TMDL. The TMDL was amended by Resolution No. R13-010 that was adopted by the Regional Water Board on December 5, 2013; State Water Board, and OAL approvals were received on June 17, 2014, and May 5, 2015, respectively. The revised TMDL became effective on October 26, 2015 upon approval of U.S. EPA. The Ballona Creek Estuary Toxic Pollutants TMDL assigned concentration-based WLAs for sediments with respect to cadmium, copper, lead, silver, zinc, chlordane, DDTs, and total PCBs to the minor NPDES permits that regulate discharges to Ballona Creek or its tributaries. A WLA for total PAHs is not included in the revised TMDL because recent data indicate that PAHs are not present at levels exceeding existing numeric targets and are not considered stressors of the designated beneficial used. This permit implements the applicable WLAs as required in this TMDL.

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.

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 MEC ≥ C, a limit is needed.
2. Trigger 2 – If the background concentration B > C and the pollutant is detected in the effluent, a limit is needed.
3. Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, or other applicable factors indicate 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 using available priority pollutant data collected by the Discharger at each Monitoring Location from March 2013 through August 2017. Receiving water data collected by the Discharger during the same period in Ballona Creek and Centinela Creek were also considered.

In addition to the RPA results, the Metals TMDL for Ballona Creek (Resolution No. R13-010) establishes both dry-weather and wet-weather WLAs for point source dischargers to Ballona Creek for copper, lead and zinc. The Regional Water Board developed WQBELs for wet-weather copper, lead, and zinc, and dry-weather copper, lead, and zinc based on the waste load allocations included in the Ballona Creek Metals TMDL. The dry-weather and wet-weather effluent limitations for these pollutants at Discharge Points 002, 004, 005 and 006 were established regardless of whether there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standards. The development of water quality-based effluent limitations for these pollutants are pursuant to 40 C.F.R. section 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis for effluent limitations consistent with the assumption and requirements of a TMDL WLA. Similarly, the SIP at Section 1.3 recognizes that reasonable potential analysis is not appropriate if a TMDL has been developed. The numeric target portion of the Metals TMDL for Ballona Creek (Resolution No. R13-010) specifies when the wet-weather and dry-weather criteria are applicable. Wet-weather effluent limitations are applicable when the flow in Ballona Creek is 64 cubic feet per second (cfs) or greater. Dry-weather effluent limitations are applicable when the flow in Ballona Creek is less than 64 cfs.

The following table summarizes results from the RPA:

Table F-8. RPA Summary

Parameter	MEC[2] (µg/L) (MEC)	CTR WQC[3] (µg/L) (C)	Receiving Water Conc. (µg/L) (B)	WLAs in Ballona Creek Metals TMDL[7]	Reasonable Potential	Rational
Discharge Point 001 (LAI Last Chance Basin)- Discharges to Centinela Creek						
Antimony[1]	2.2	4,300	2.6	No	No	MEC<C & B<C[4]
Arsenic[1]	26	150	1.4	No	No	MEC<C & B<C[4]

Parameter	MEC[2] (µg/L) (MEC)	CTR WQC[3] (µg/L) (C)	Receiving Water Conc. (µg/L) (B)	WLAs in Ballona Creek Metals TMDL[7]	Reasonable Potential	Rational
Cadmium[1]	0.57	3.67	2ND (<0.25)	No	No	MEC<C & B<C[4]
Chromium (III)[1]	2.5[6]	314	2.04	No	No	MEC<C & B<C[4]
Chromium (VI)	0.42	11	0.46	No	No	MEC<C & B<C[4]
Copper[1] (All-weather)	58	14.42	27	No	Yes	MEC > C[5]
Lead[1] (All-weather)	43	6.09	16	No	Yes	MEC > C[5]
Nickel[1]	28	80.29	3.7	No	No	MEC<C & B<C[4]
Selenium[1]	3.8	5	<0.5	No	No	MEC<C & B<C[4]
Zinc[1] (All-weather)	200	185	130	No	Yes	MEC > C[5]
Cyanide	10	5.2	ND (<3)	No	Yes	MEC > C[5]
Bis (2-Ethylhexyl) Phthalate	24.2	5.9	5.5	No	Yes	MEC > C[5]
Discharge Point 002 (Dabney Lloyd Basin)- Discharges to Ballona Creek Reach 2						
Antimony[1]	1.7	4,300	6	No	No	MEC<C & B<C[4]
Arsenic[1]	19	150	3.3	No	No	MEC<C & B<C[4]
Chromium (III)[1]	46[6]	314	5.75	No	No	MEC<C & B<C[4]
Chromium (VI)	DNQ (0.44)	11	DNQ (1.25)	No	No	MEC<C & B<C[4]
Copper[1] (Dry-weather)	21.8	14.42	51	Yes	Yes	TMDL
Copper[1] (Wet-weather)	57	14.42	51	Yes	Yes	TMDL
Lead[1] (Dry-weather)	3.9	6.09	31.7	Yes	Yes	TMDL
Lead[1] (Wet-weather)	43	6.09	31.7	Yes	Yes	TMDL
Nickel[1]	36	80.29	9.1	No	No	MEC<C & B<C[4]
Selenium[1] (All-weather)	5.2	5	ND (<0.5)	Yes	Yes	MEC > C[5]
Zinc[1] (Dry-weather)	308	185	230	Yes	Yes	TMDL
Zinc[1] (Wet-weather)	190	185	230	Yes	Yes	TMDL
Pentachlorophenol	DNQ (1.7)	8.2	DNQ (1.6)	No	No	MEC<C & B<C[4]
Discharge Point 003 (Stocker Basin)- Discharges to Centinela Creek						

Parameter	MEC[2] (µg/L) (MEC)	CTR WQC[3] (µg/L) (C)	Receiving Water Conc. (µg/L) (B)	WLAs in Ballona Creek Metals TMDL[7]	Reasonable Potential	Rational
Arsenic[1]	16	150	1.4	No	No	MEC<C & B<C[4]
Chromium (III)[1]	27[6]	314	2.04	No	No	MEC<C & B<C[4]
Chromium (VI)	0.36	11	0.46	No	No	MEC<C & B<C[4]
Copper[1] (All-weather)	48	14.42	27	No	Yes	MEC > C[5],
Lead[1] (All-weather)	37	6.09	16	No	Yes	MEC > C[5]
Nickel[1]	22	80.29	3.7	No	No	MEC<C & B<C[4]
Zinc[1] (All-weather)	190	185	130	No	Yes	MEC<C & B<C[4]
Pentachlorophenol	DNQ (2.1)	8.2	DNQ (1.6)	No	No	MEC<C & B<C[4]
Bis (2-Ethylhexyl) Phthalate	2.6	5.9	5.5	No	No	MEC<C & B<C[4]
Discharge Point 004 (Vickers - I Basin)- Discharges to Ballona Creek Reach 2						
Antimony[1]	1.1	4,300	6	No	No	MEC<C & B<C[4]
Arsenic[1]	12.2	150	3.3	No	No	MEC<C & B<C[4]
Chromium (VI)	0.06	11	1.25	No	No	MEC<C & B<C[4]
Copper[1] (Dry-weather)	3.8	14.42	NR	Yes	Yes	TMDL
Copper[1] (Wet-weather)	NR	14.42	51	Yes	Yes	TMDL
Lead[1] (Dry-weather)	ND(<1)	6.09	NR	Yes	Yes	TMDL
Lead[1] (Wet-weather)	NR	6.09	31.7	Yes	Yes	TMDL
Nickel[1]	3.4	80.29	9.1	No	No	MEC<C & B<C[4]
Selenium[1] (All-weather)	2	5	ND (<0.5)	No	No	MEC<C & B<C[4]
Zinc[1] (Dry-weather)	15.3	185	NR	Yes	Yes	TMDL
Zinc[1] (Wet-weather)	NR	185	230	Yes	Yes	TMDL
Discharge Point 005 (Lower Vickers - II Basin)- Discharges to Ballona Creek Reach 2						
Antimony[1]	NR	4,300	6	No	No	MEC<C & B<C[4]
Arsenic[1]	NR	150	3.3	No	No	MEC<C & B<C[4]

Parameter	MEC[2] (µg/L) (MEC)	CTR WQC[3] (µg/L) (C)	Receiving Water Conc. (µg/L) (B)	WLAs in Ballona Creek Metals TMDL[7]	Reasonable Potential	Rational
Chromium (III)[1]	NR	314	5.75	No	No	MEC<C & B<C[4]
Chromium (VI)	NR	11	1.25	No	No	MEC<C & B<C[4]
Copper[1] (Dry-weather)	NR	14.42	NR	Yes	Yes	TMDL
Copper[1] (Wet-weather)	NR	14.42	51	Yes	Yes	TMDL
Lead[1] (Dry-weather)	NR	6.09	NR	Yes	Yes	TMDL
Lead[1] (Wet-weather)	NR	6.09	31.7	Yes	Yes	TMDL
Nickel[1]	NR	80.29	9.1	No	No	MEC<C & B<C[4]
Selenium[1] (All-weather)	NR	5	ND (<0.5)	No	No	MEC<C & B<C[4]
Zinc[1] (Dry-weather)	NR	185	NR	Yes	Yes	TMDL
Zinc[1] (Wet-weather)	NR	185	230	Yes	Yes	TMDL
Discharge Point 006 (Upper Vickers - II Basin)- Discharges to Ballona Creek Reach 2						
Arsenic[1]	42	150	3.3	No	No	MEC<C & B<C[4]
Cadmium[1]	1.4	3.67	0.45	No	No	MEC<C & B<C[4]
Chromium (III)[1]	110[6]	314	5.75	No	No	MEC<C & B<C[4]
Chromium (VI)	DNQ (0.94)	11	1.25	No	No	MEC<C & B<C[4]
Copper[1] (Dry-weather)	NR	14.42	NR	Yes	Yes	TMDL
Copper[1] (Wet-weather)	110	14.42	51	Yes	Yes	TMDL
Lead[1] (Dry-weather)	NR	6.09	NR	Yes	Yes	TMDL
Lead[1] (Wet-weather)	94	6.09	31.7	Yes	Yes	TMDL
Mercury[1]	0.2	0.051	ND (<0.1)	Yes	Yes	MEC > C[5]
Nickel[1]	73	80.29	9.1	No	No	MEC<C & B<C[4]
Selenium[1] (All-weather)	2.1	5	ND (<0.5)	No	No	MEC<C & B<C[4]
Zinc[1] (Dry-weather)	NR	185	NR	Yes	Yes	TMDL
Zinc[1] (Wet-weather)	380	185	230	Yes	Yes	TMDL

NR = Not Reported; DNQ = Detected, but Not Quantified; ND = Not Detected.

[1] Concentration expressed as total recoverable.
[2] MEC is the maximum effluent concentration observed from March 2013 through August 2017.
[3] CTR Water Quality Criteria (WQC) is the most stringent applicable WQC contained in the CTR based on a hardness value of 166.5 mg/L as $CaCO_3$ (see Table F-6).
[4] Reasonable potential does not exist because both the MEC and receiving water concentration are less than the applicable water quality criteria.
[5] Reasonable potential does exist because the MEC is greater than or equal to the applicable water quality criteria.
[6] Concentration expressed in total chromium.
[7] Dry-weather and wet-weather waste load allocations (WLAs) assigned to the minor permits in the Ballona Creek Metals TMDL (Resolution No. R13-010) are used in this permit. The dry-weather and wet-weather effluent limitations for these pollutants at Discharge Points 002, 004, 005 and 006 were established regardless of whether or not there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standards.

4. WQBEL Calculations

a. If 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 the WLA established as part of a TMDL.

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

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

b. WQBELs for copper, lead, and zinc for both dry weather and wet weather through Discharge Points 002, 004, 005 and 006 have been calculated using the WLAs provided in the Metals TMDL for Ballona Creek (Resolution No. R13-010) and the procedures specified in Section 1.4 of the SIP.

c. The WQBELs for copper, lead and zinc at Discharge Point 001 and 003, bis(2-ethylhexyl) phthalate at Discharge Point 001, selenium at Discharge Point 002, and mercury at Discharge Point 006 are established based on CTR criteria and following the procedures based on the steady-state model in accordance to section 1.4 of the SIP.

d. Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. No dilution credit is included in this Order. However, in accordance with the reopener provision in section VI.C.1.f of this Order, it 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 Example

   Using total recoverable lead for Discharge Point 001 and total recoverable copper for Discharge Point 002 as examples, the following demonstrates how WQBELs were established for this Order. The example of copper indicates how WLAs in the Ballona Creek Metals TMDL are included in the development of WQBELs. The tables in Attachments J summarize the development and calculation of all WQBELs for this Order using the process described below. The process for developing these limits is in accordance with section 1.4 of the SIP.

Concentration-Based Effluent Limitations

Two sets 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.

Lead WQBEL at Discharge Point 001 (Discharges to Centinela Creek)

Calculation of aquatic life AMEL and MDEL for lead

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

$ECA = C + D(C-B)$ when C>B, and

$ECA = C$ when C≤B

Where: C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH, and translators. In this Order, a hardness value of 150 mg/L (as $CaCO_3$) was used for development of hardness-dependent criteria for Discharge Point 001.
D = The dilution credit
B = The ambient background concentration

As discussed above, this Order does not allow dilution; therefore:

$ECA = C$

For total recoverable lead, the applicable water quality criteria are (reference Table F-6):

$ECA_{Acute\ (lead)} = 156.24\ \mu g/L$

$ECA_{Chronic\ (lead)} = 6.09\ \mu g/L$

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

$LTA_{acute} = ECA_{acute} \times Multiplier_{acute99}$

$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic99}$

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. If the data set is greater than 10 samples, and at least 20% of the samples in the data set are reported as detected, the CV shall be equal to the standard deviation of the data set divided by the average of the data set.

For total recoverable lead, because the data set includes 10 samples, the calculated CV is equal to 1.874 (standard deviation divided by the average). The following calculated ECA multipliers using equations provided in Section 1.4, Step 3 of the SIP were used to develop the acute and chronic LTAs. Table 1 of the SIP also provides this data up to three decimals.

No. of Samples	CV	ECA Multiplier$_{acute}$	ECA Multiplier$_{chronic}$
10	1.874	0.1222	0.2162

$LTA_{acute\ (lead)}$ = 156.24 µg/L x 0.1222 = 19.09µg/L

$LTA_{chronic\ (lead)}$ = 6.09 µg/L x 0.2162 = 1.317 µg/L

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

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

For total recoverable lead, the $LTA_{chronic}$ is selected as it is the most limiting.

LTA = $LTA_{chronic(lead)}$ = 1.317 µg/L

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

$AMEL_{aquatic\ life}$ = LTA x $AMEL_{multiplier95}$

$MDEL_{aquatic\ life}$ = LTA x $MDEL_{multiplier99}$

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) per month, the default number of samples to be used is four (4).

For total recoverable lead, the following data were used to develop the AMEL and MDEL for effluent limitations using equations provided in section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	Multiplier$_{MDEL99}$	Multiplier$_{AMEL95}$
4	1.874	8.182	2.694

Total recoverable <u>lead</u>

$AMEL_{(lead)}$ = 1.317 µg/L x 2.694 = 3.547 µg/L

$MDEL_{(lead)}$ = 1.317 µg/L x 8.182 = 10.77 µg/L

<u>Calculation of human health AMEL and MDEL for lead</u>

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

$AMEL_{Human\ Health} = ECA_{Human\ Health}$

For total recover lead, there is no numeric human health criteria. Therefore, this procedure is not applicable.

Step 6: Calculate the MDEL for human health by multiplying the AMEL in Step 5 by the ratio of $Multipler_{MDEL}$ to the $Multiplier_{AMEL}$. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

$MDEL_{Human\ Health} = AMEL_{Human\ Health} \times (Multiplier_{MDEL} / Multiplier_{AMEL})$

This procedure is not applicable for lead.

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

Final WQBELs for Lead:

$AMEL_{aquatic\ life}$	$MDEL_{aquatic\ life}$	$AMEL_{human\ health}$	$MDEL_{human\ health}$
3.547	10.77	N/A	N/A

The lowest (most restrictive) effluent limits ate incorporated into the Order

$AMEL_{lead} = 3.547\ \mu g/L$

$MDEL_{lead} = 10.77\ \mu g/L$

Since the discharge from the Facility is not continuous, average monthly effluent limitations (AMELs) are not prescribed in the Order. The calculated MDEL for lead at Discharge Point 001 will apply to both wet and dry weather conditions.

Copper WQBELs at Discharge Point 002 (Discharges to Ballona Creek Reach 2)

Calculation of aquatic life AMEL and MDEL for copper

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

When 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 water quality criterion is from the Ballona Creek Metals TMDL WLAs. The dry-weather WLAs are based on chronic CTR criteria. The wet-weather WLAs are based on acute CTR criteria. Thus, for total recoverable copper the applicable WLAs are (reference Table F-7):

$WLA_{wet\text{-}weather} = 13.7\ \mu g/L = ECA_{acute\ (copper)}$

$WLA_{dry\text{-}weather} = 35.56\ \mu g/L = ECA_{chronic\ (copper)}$

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). 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. Since the data set for copper is less than 10 samples, the CV is set equal to 0.6.

For wet-weather total recoverable copper, because the data set includes 10 samples (greater than 10 samples), the calculated CV is equal to 1.571 (standard deviation divided by the average). The corresponding multiplier is as follows:

No. of Samples	CV	ECA Multiplier$_{acute\ 99}$
10	1.571	0.139

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

$LTA_{acute\ (wet\text{-}weather\ copper)} = 13.70\ \mu g/L \times 0.139 = 1.904\ \mu g/L$

For dry-weather total recoverable copper, because only one sample result is available, the CV is set equal to 0.6. The corresponding multiplier is as follows:

No. of Samples	CV	ECA Multiplier$_{chronic\ 99}$
None	0.6 (default)	0.527

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

$LTA_{chronic\ (dry\text{-}weather\ copper)} = 35.56\ \mu g/L \times 0.527 = 18.74\ \mu g/L$

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, thus both LTAs (wet and dry) will be used.

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as AMEL and MDEL. The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the CV of the data set, the number of samples (for AMEL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples.

$AMEL_{aquatic\ life} = LTA_{copper} \times AMEL_{multiplier95}$

$MDEL_{aquatic\ life} = LTA_{copper} \times MDEL_{multiplier99}$

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) per month, the default number of samples to be used is four (4).

For total recoverable copper, the following data were used to develop the AMEL and MDEL for effluent limitations using equations provided in section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	Discharge Condition	CV	Multiplier$_{MDEL99}$	Multiplier$_{AMEL95}$
4 (default)	Wet weather	1.571	7.19	2.46

No. of Samples Per Month	Discharge Condition	CV	$Multiplier_{MDEL99}$	$Multiplier_{AMEL95}$
4 (default)	Dry weather	0.6	3.11	1.55

Total recoverable copper (wet-weather)

$AMEL_{wet\text{-}weather}$ = 1.904 µg/L x 2.46 = 4.68 µg/L

$MDEL_{wet\text{-}weather}$= 1.904 µg/L x 7.19 = 13.69 µg/L

Total recoverable copper (dry-weather)

$AMEL_{dry\text{-}weather}$ = 18.74 µg/L x 1.55 = 29.05 µg/L

$MDEL_{dry\text{-}weather}$= 18.74 µg/L x 3.11 = 58.28 µg/L

Calculation of human health AMEL and MDEL for Copper

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

$AMEL_{Human\ Health} = ECA_{Human\ Health}$

This step is not applicable for the permit because none of the criteria for the provided WLAs are based on human health criteria.

$AMEL_{human\ health\ (copper)} = ECA_{human\ health\ (copper)}$ = Not Available

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of $Multipler_{MDEL}$ to the $Multiplier_{AMEL}$. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

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

This step is not applicable for the permit because none of the criteria for the provided WLAs are based on human health criteria.

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the WQBELs 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:

Final WQBELs for copper

$AMEL_{wet}$	$MDEL_{wet}$	$AMEL_{dry}$	$MDEL_{dry}$
4.68 µg/L*	13.69 µg/L	29.05 µg/L*	58.28 µg/L

The wet-weather based effluent limitations are applicable when the maximum daily flow in Ballona Creek is 64 cfs or more. The dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cfs.

Since the discharge from the Facility is not continuous, average monthly effluent limitations (AMELs) are not prescribed in the Order.

Final WQBELs are summarized in Table F-9 of this Fact Sheet.

5. WQBELs Based on Basin Plan Objectives

The Basin Plan states that the discharge shall not cause the following in the receiving water:

- The normal ambient pH to fall below 6.5 nor exceed 8.5 units.

- Depress the concentration of dissolved oxygen below 5.0 mg/L anytime nor shall the mean annual concentration of dissolved oxygen fall below 7 mg/L.

To meet the water quality objectives in the Basin Plan and to protect the beneficial uses of the receiving water, the above requirements are included as effluent or receiving water limitations in the Order. The Basin Plan also contains water quality bacteria objectives for the protection of contact recreation beneficial use. This Order includes receiving water limitations for E. coli in order to protect the contact water recreation (REC-1) beneficial use of the receiving water.

Other constituents addressed in the Basin Plan were evaluated as follows:

a. **Ammonia.** The ammonia objectives in the Basin Plan were amended by Resolution Nos. 2002-011 and 2005-014 by the Regional Water Board. The ammonia objectives were determined based on pH and temperature in the receiving water. Because of insufficient data (less than 5 data points) for pH and temperature in the receiving water, the RPA for ammonia was not conducted. To obtain sufficient data, this Order increases the monitoring frequency for pH and temperature in the receiving from yearly to quarterly.

b. **Temperature.** The Basin Plan identifies numeric temperature objectives consistent with the Thermal Plan. A white paper was 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. This Order includes an instantaneous effluent temperature limitation of 86º F, which was based on the findings included in the white paper.

c. **Total Suspended Solids.** The Basin Plan requires that, "Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses." This narrative objective has been translated into a numeric effluent limit, based on U.S. EPA's Quality Criteria for Water (commonly known as the "Gold Book"). In the Gold Book, U.S. EPA notes that "In a study downstream from a discharge where inert suspended solids were increased to 80 mg/L, the density of macroinvertebrates decreased by 60 percent…". This indicates that suspended solids concentrations of 80 mg/L in the receiving water resulted in adverse effects to aquatic life. An effluent limitation of 75 mg/L (daily maximum) is included in this Order. This effluent limitation is protective of the narrative objective for TSS and is based on BPJ.

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

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

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

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

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 responses include, but are 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. Order No. R4-2013-0021 contains acute toxicity limitations and monitoring requirements in accordance with the Basin Plan, in which the acute toxicity limitation 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. The effluent acute toxicity data reported by the Discharger from March 2013 through August 2017 showed only one noncompliance (67% survival) occurred on February 7, 2017 at Discharge Point 004. It indicates that toxicity may be present in the discharge.

Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects. Because discharge from the Facility may include a number of pollutants, which individually may not be present in toxic concentrations while exhibiting aggregated toxic effects as a whole, this Order prescribes a chronic toxicity effluent limitation and requires chronic toxicity monitoring of the effluent at all Discharge Points. The whole effluent toxicity testing is evaluated using U.S. EPA's 2010 Test of Significant Toxicity (TST) statistical approach. In 2010, U.S. EPA endorsed the peer-reviewed TST statistical approach in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010) as an improved statistical tool to evaluate data from U.S. EPA's toxicity test methods. The TST statistical approach is the superior statistical approach for addressing statistical uncertainty when used in combination with U.S. EPA's toxicity test methods and is implemented in federal permits issued by U.S. EPA Region 9.

The TST's null hypothesis for chronic toxicity is:

H_0: Mean response (In-stream Waste Concentration (IWC) in % effluent) ≤ (0.75 x mean response (Control)).

Results obtained from a chronic toxicity test are analyzed using the TST statistical approach and an acceptable level of chronic toxicity is demonstrated by rejecting the null hypothesis and reporting "Pass" or "P". Chronic toxicity results are expressed as "Pass" or "Fail" and "% Effect". The chronic toxicity IWC for all Discharge Points is 100 percent effluent. The MDEL for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed at the IWC using the TST statistical approach, results in "Fail" and the Percent Effect is ≥50%.

Order No. R4-2013-0021 contained final effluent limitations and monitoring requirements for acute toxicity. This Order instead includes monitoring requirements and effluent limitations for chronic toxicity, consistent with the Basin Plan. Chronic toxicity is a more stringent requirement than acute toxicity, and it evaluates the mortality endpoint as does the acute toxicity testing as well as deleterious effects such as reductions in growth and reproduction which will likely occur prior to mortality.

7. Final WQBELs

Table F-9. Water Quality-based Effluent Limitations for Discharge Points 001 through 006

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Discharge Points 001, 002, 003, 004, 005 and 006					
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	--	30	--	--
Oil and Grease	mg/L	--	15	--	--
pH	pH unit	--	--	6.5	8.5
Temperature	deg. F	--	--	--	86
Total Suspended Solids (TSS)	mg/L	--	75	--	--
Turbidity	NTU	--	75	--	--
Chronic Toxicity [1]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--
Total Petroleum Hydrocarbons (TPH) [2]	µg/L	--	100	--	--
Discharge Point 001 - *Discharge to Centinela Creek*					
Copper , Total Recoverable (All-weather)	µg/L	--	23	--	--
Lead, Total Recoverable (All-weather)	µg/L	--	10.8	--	--
Zinc, Total Recoverable (All-weather)	µg/L	--	185	--	--
Cyanide	µg/L	--	8.5	--	--
Bis(2-Ethylhexyl)Phthalate	µg/L	--	12	--	--
Discharge Point 003 - *Discharge to Centinela Creek*					
Copper , Total Recoverable (All-weather)	µg/L	--	23	--	--
Lead, Total Recoverable (All-weather)	µg/L	--	10	--	--
Zinc, Total Recoverable (All-weather)	µg/L	--	185	--	--
Discharge Points 002, 004, 005 and 006 - *Discharges to Ballona Creek Reach 2*					
Copper , Total Recoverable (Dry-weather)[3]	µg/L	--	58	--	--
Lead, Total Recoverable (Dry-weather)[3]	µg/L	--	32	--	--
Zinc, Total Recoverable (Dry-weather)[3]	µg/L	--	733	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper , Total Recoverable (Wet-weather)[3]	µg/L	--	14	--	--
Lead, Total Recoverable (Wet-weather)[3]	µg/L	--	77	--	--
Zinc, Total Recoverable (Wet-weather)[3]	µg/L	--	105	--	--
Discharge Point 002 - *Discharge to Ballona Creek Reach 2*					
Selenium , Total Recoverable (All-weather)	µg/L	--	8.7	--	--
Discharge Point 006 - *Discharge to Ballona Creek Reach 2*					
Mercury , Total Recoverable (All-weather)	µg/L	--	0.10	--	--

1. The maximum daily effluent limitation (MDEL) shall be reported "Pass" or "Fail" and "% Effect". The MDEL is exceeded when a toxicity test results in a "Fail," and the percent effect is greater than or equal to 0.50. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL).
2. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).
3. Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs.

D. Final Effluent Limitation Considerations

Technology-based effluent limitations for BOD, settleable solids, oil and grease, TPH, and turbidity are included in this Order, based on a review of Facility operations and BPJ. WQBELs for cyanide and bis(2-ethylhexyl)phthalate at Discharge Point 001, selenium at Discharge Point 002, copper, lead and zinc at Discharge Points 001 and 003 and mercury at discharge Point 006 are included in this permit based on the presence of reasonable potential for these constituents in the data set collected from March 2013 to August 2017; these effluent limitations are derived based on CTR criteria and SIP procedures. Effluent limitations for dry and wet weather copper, lead and zinc at Discharge Points 002, 004, 005 and 006 are developed in accordance with the Ballona Creek Metals TMDL. A chronic toxicity effluent limitation (evaluated using the TST statistical approach), which is a more stringent requirement than the acute toxicity limitation, is included in this Order in lieu of an acute toxicity effluent limitation. Effluent limitations for TSS, temperature and pH are included in this Order in accordance with the Basin Plan.

Refer to Attachment J for a summary of the RPA and associated effluent limitation calculations.

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. 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. Certain effluent limitations established in this Order are at least as stringent as the requirements and limitations of Order No. R4-2013-0121. The exceptions include the removal of the acute toxicity and phenols effluent limitations at all discharge points, the removal of selenium effluent limitations at Discharge Points 001, 003 through 006, the removal of mercury effluent limitation at Discharge Points 001 and 002, modifications of the dry weather copper, lead

and zinc and wet weather lead effluent limitations at Discharge Points 002, 004, 005 and 006, and modifications of all weather lead effluent limitations at Discharge Points 001 and 003 and all weather zinc at Discharge Point 001.

As discussed in Section IV.C.6 of this Attachment, Order No. R4-2013-0021 contained acute toxicity limitations based on Basin Plan objectives. This Order includes a chronic toxicity effluent limitation evaluated using the TST statistical approach, and requires chronic toxicity monitoring for the effluent at Discharge Points 001 through 006. A chemical at a low concentration can have chronic effects but no acute effects; chronic toxicity is protective of both the numeric and the narrative acute toxicity Basin Plan water quality objectives. As chronic toxicity is a more stringent requirement than acute toxicity, the inclusion of a chronic toxicity limit replacing the acute toxicity effluent limitation is consistent with the anti-backsliding requirements of the CWA and federal regulations. Hence, the removal of the acute toxicity effluent limitation does not constitute backsliding.

The effluent limitations for phenols were included in historical Orders for the discharge and are no longer applicable. Order No. R4-2013-0021 retained the limitations from prior permits based on the presence of phenols in historical discharges from the Facility during prior permit term. During the term of Order No. R4-2013-0021, the Discharger installed storm water treatment systems at each discharge point. Also, all effluent monitoring results (16 data points) from all discharge points collected during the term of Order No. R4-2013-0021 are all non-detects, and the method detection limits for phenols were all lower than the effluent limitations for phenols. CWA section 402(o)(2) allows backsliding where material and substantial alterations or additions to the permitted facility occurred after permit issuance, or new information (other than revised regulations, guidance, or test methods) becomes available that was not available at the time of permit issuance and that would have justified a less stringent effluent limitation. The removal of the effluent limitations for phenols complies with the exception to the anti-backsliding requirements because of Facility modifications during the term of Order No. R4-2013-0021 and the availability of new information (monitoring data) that was not available at the time when Order No. R4-2013-0021 was adopted, which demonstrates that there is no reasonable potential for the applicable water quality criteria to be exceeded. Therefore, removing the effluent limitations for phenols is appropriate and complies with the exception to the anti-backsliding requirements. The Discharger is required to monitor phenols in future discharges as per the MRP.

The removal of selenium effluent limitations at Discharge Points 001, 003 through 006, and the removal of mercury effluent limitations at Discharge Points 001 and 002 are based on the results of reasonable potential analyses using the monitoring data from March 2013 to August 2017, all of which were not available at the time of the prior permit issuance. These pollutants do not have a reasonable potential to cause or contribute to an excursion above a state water quality standard. Therefore, removing the effluent limitations for selenium and mercury at the specified discharge points is appropriate and complies with the exception to the anti-backsliding requirements. Dry and wet weather selenium effluent limitations in Order No. R4-2013-0021 for Discharge Points 002, 004, 005 and 006 were based on the WLAs for selenium in the previous version of Ballona Creek Metals TMDLs. Since the selenium WLAs were removed in the amended Ballona Creek Metals TMDL (Resolution No. R13-010) indicating that the water body is no longer impaired for selenium, selenium effluent limitations for Discharge Points 002, 004, 005 and 006 based on WLAs are no longer applicable. However, based on the presence of reasonable pontential for selenium at Discharge Point 002, an all weather effluent limitation for selenium at Discharge Point 002 was established using CTR criteria and the SIP procedures. The relaxation in the selenium effluent limitation at Discharge Point 002 reflected “new

information" that was not available during the prior permit issuance and it complies with the exception to the anti-backsliding requirements.

Effluent limitations for dry weather and wet weather copper, lead and zinc at Discharge Points 002, 004, 005 and 006 are modified in this Order and are consistent with modifications of requirements included in the Ballona Creek Metals TMDL in Resolution No. R13-010 which became effective on October 26, 2015. These requirements were developed subsequent to the adoption of Order No. R4-2013-0021. The information on which the effluent limitations included in this Order were based is new information that was not available at the time of the prior permit issuance and would have justified the application of less stringent effluent limitations for dry weather copper, lead and zinc and for wet weather lead at Discharge Points 002, 004, 005 and 006. Moreover, the cumulative effect of the WLAs will result in attaining the beneficial uses of the receiving water. As such, the relaxation is consistent with both Section 402 of the CWA and CWA section 303(d)(4)(A). Section 303(d)(4)(A) allows for the establishment of a less stringent effluent limitation based on a TMDL WLA when the receiving water has been identified as not meeting applicable water quality standards (i.e., a nonattainment water) and the TMDL WLA is part of an overall strategy for achieving attainment. Pursuant to Section 402(o)(2) of the CWA, the relaxation in effluent limitations for lead and zinc at Discharge Point 001 and for lead at Discharge Point 003 are consistent with anti-backsliding requirements because they reflect "new information" (the receiving water hardness and the new CVs based on reported data) that was not available during the prior permit issuance.

2. Antidegradation Policies

40 C.F.R. 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. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge and ensures that any discharges permitted herein will not violate the antidegredation policies.

The relaxation of effluent limitations for copper (dry weather), lead (dry and wet weather) and zinc (dry weather) at Discharge Points 002, 004, 005 and 006 in this Order will not result in the degradation of high quality waters because these limitations are developed based on the Ballona Creek Metals TMDL WLAs and the cumulative effect of the WLAs are expected to result in attaining the beneficial uses of the receiving water.

The selenium limitations at Discharge Point 002 in the 2013 Order were more stringent because they were developed based on the WLA for selenium in the 2007 Ballona Creek Metals TMDL. Recent data indicate that selenium is not imparing the beneficial uses and a WLA for selenium is not included in the amended Ballona Creek Metals TMDL (Resolution No. R13-010). The effluent limitations for selenium at Discharge Point 002 in this Order are developed based on CTR criteria and take into consideration the new monitoring data for selenium at Discharge Point 002. Although these new limitations for selenium are less stringent, compliance with these effluent limitations will ensure selenium concentrations in the discharge meet CTR water quality based effluent limitations and protect the beneficial uses of the receiving water.

The effluent limitations for copper, lead and zinc at Discharge Points 001 and 003 in this Order are developed based on CTR criteria with the application of a new receiving water

hardness of 166.5 mg/L. This hardness value was determined using monitoring data reported by the Discharger during the last permit term and by the City of Los Angeles from November 2015 to December 2016. The hardness value used was based on new information. Compliance with these effluent limitations will ensure concentrations of these pollutant in the receiving water meet CTR criteria and protect the beneficial uses of the receiving water. Therefore, the effluent limitations for copper, lead and zinc at Discharge Points 001 and 003 are consistent with the state's antidegradation policy.

The effluent monitoring conducted during the term of Order No. R4-2013-0021 resulted in non-detected values for phenols with method detection limits below the effluent limitation for phenols contained in Order No. R4-2013-0021. Hence, there is no reasonable potential for the concentration of phenols in the discharge to cause or contribute to an exceedance of the water quality objective. The removal of selenium effluent limitations at Discharge Points 001, 003 through 006, and the removal of mercury effluent limitations at Discharge Points 001 and 002 will not result in the degradation of the receiving water because the removal of the effluent limitations are based on no reasonable potential for these pollutants to cause or contribute to an excursion above a state water quality standard.

In summary, the permitted discharge is not a new discharge. This Order does not provide for an increase in the permitted design flow at any discharge point, nor does it allow for a reduction in the level of treatment. The final limitations in this Order, which include concentration based and mass based limitations, hold the Discharger to performance levels that will not adversely impact the beneficial uses or degrade the water quality of the receiving waters, and they are developed consistent with federal guidelines and state regulations. The effluent limitations, receiving water limitations, and effluent and receiving water monitoring requirements ensure that excursions above water quality objectives of the receiving waters will be apparent and can be addressed immediately. Further, compliance with these requirements will result in the use of best practicable treatment or control of the discharge.

Finally, the State Water Board issued Administrative Procedures Update 90-004 (APU 90-004), which provides guidance for the Regional Boards for implementing State Board Resolution No. 68-16, State Antidegradation Policy. Regarding circumstances when antidegradation analyses are required, APU 90-004 states that a complete antidegradation analysis is not required when reduction of water quality is temporally limited and will not result in any long-term deleterious effects on water quality. Since the impact on the receiving water caused by the storm water discharges from the Facility is short-term and will cease after a storm event is over, it will not result in any long-term deleterious effects on receiving water quality. Based on the above analysis, the storm water discharges are consistent with federal and state antidegradation policies.

3. Mass-based Effluent Limitations

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. 40 C.F.R. 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.

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

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

where: Mass = mass limitation for a pollutant (lbs/day)

Effluent limitation = concentration limit for a pollutant (mg/L)

Flow rate = discharge flow rate (MGD)

The mass-based effluent limitations are calculated based on the permitted discharge flow form the respective discharge point.

4. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions for BOD, settleable solids, oil and grease, TPH, and turbidity. Restrictions on these pollutants are discussed in section IV.B of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been 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 40 C.F.R. section 131.38. The procedures for calculating the individual WQBELs for priority pollutants are based on the CTR implemented by the SIP, which was approved by U.S. EPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by U.S. EPA prior to May 30, 2000. The remaining water quality objectives and beneficial uses implemented by this Order were approved by U.S. EPA and are applicable water quality standards pursuant to section 131.21(c)(2). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

5. Summary of Final Effluent Limitations

Table F-10a. Summary of Final Effluent Limitations for Discharge Point 001

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	167	--	--	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	83	--	--	
pH	s.u.	--	--	6.5	8.5	E, BP
Total Suspended Solids (TSS)	mg/L	--	75	--	--	BPJ
	lbs/day[2]	--	417	--	--	
Non-Conventional Pollutants						
Chronic Toxicity[3]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--	BP
Settleable Solids	ml/L	--	0.3	--	--	BPJ
Temperature	deg. F	--	--	--	86	E, BP, WP, TP

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Turbidity	NTU		75	--	--	BPJ
Total Petroleum Hydrocarbons (TPH)[4]	µg/L	--	100	--	--	BPJ
	lbs/day[2]	--	0.56	--	--	
Priority Pollutants						
Copper , Total Recoverable (All-weather)	µg/L	--	23	--	--	CTR, SIP
	lbs/day[2]	--	0.13	--	--	
Lead, Total Recoverable (All-weather)	µg/L	--	10.8	--	--	CTR, SIP
	lbs/day[2]	--	0.060	--	--	
Zinc, Total Recoverable (All-weather)	µg/L	--	185	--	--	CTR, SIP
	lbs/day[2]	--	1.03	--	--	
Cyanide, Total (as CN)	µg/L	--	8.5	--	--	CTR, SIP
	lbs/day[2]	--	0.047	--	--	
Bis (2-Ethylhexyl) Phthalate	µg/L	--	12	--	--	CTR, SIP
	lbs/day[2]	--	0.067	--	--	

1 E= Order No. R4-2013-0021; BPJ = Best Professional Judgment; BP = Basin Plan; CTR = California Toxics Rule; SIP = State Implementation Policy; WP = White Paper; and TP= Thermal Plan.

2 Mass loading limitations are based on the permitted flow at Discharge Point 001 (0.666 million gallons per day (MGD)) and are calculated as follows:

Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

3 The maximum daily effluent limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect". The MDEL is exceeded when a toxicity test results in a "Fail," and the percent effect is greater than or equal to 0.50. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL).

4 TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

Table F-10b. Summary of Final Effluent Limitations for Discharge Point 002

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	766	--	--	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	383	--	--	
pH	s.u.	--	--	6.5	8.5	E, BP
Total Suspended Solids (TSS)	mg/L	--	75	--	--	BPJ
	lbs/day[2]	--	1910	--	--	
Non-Conventional Pollutants						
Chronic Toxicity[3]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--	BP
Settleable Solids	ml/L	--	0.3	--	--	BPJ
Temperature	deg. F	--	--	--	86	E, BP, WP, TP

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Turbidity	NTU		75	--	--	BPJ
Total Petroleum Hydrocarbons (TPH)[4]	µg/L	--	100	--	--	BPJ
	lbs/day[2]	--	2.55	--	--	
Priority Pollutants						
Copper , Total Recoverable (Dry-weather)[5]	µg/L	--	58	--	--	TMDL
	lbs/day[1]	--	1.48	--	--	
Copper , Total Recoverable (Wet-weather)[5]	µg/L	--	14	--	--	TMDL
	lbs/day[1]	--	0.36	--	--	
Lead, Total Recoverable (Dry-weather)[5]	µg/L	--	32	--	--	TMDL
	lbs/day[1]	--	0.82	--	--	
Lead, Total Recoverable (Wet-weather)[5]	µg/L	--	77	--	--	TMDL
	lbs/day[1]	--	1.97	--	--	
Selenium , Total Recoverable (All-weather)	µg/L	--	8.7	--	--	CTR, SIP
	lbs/day[1]	--	0.22	--	--	
Zinc, Total Recoverable (Dry-weather)[5]	µg/L	--	733	--	--	TMDL
	lbs/day[1]	--	18.7	--	--	
Zinc, Total Recoverable (Wet-weather)[5]	µg/L	--	105	--	--	TMDL
	lbs/day[1]	--	2.68	--	--	

[1] E= Order No. R4-2013-0021; BPJ = Best Professional Judgment; BP = Basin Plan; CTR = California Toxics Rule; SIP = State Implementation Policy; TMDL = Total Maximum Daily Loads (Resolution No. R13-010); WP = White Paper; and TP= Thermal Plan.

[2] Mass loading limitations are based on the permitted flow at Discharge Point 002 (3.06 million gallons per day (MGD)) and are calculated as follows:

Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

[3] The maximum daily effluent limitation (MDEL) shall be reported as “Pass” or “Fail” and “% Effect”. The MDEL is exceeded when a toxicity test results in a “Fail,” and the percent effect is greater than or equal to 0.50. Report “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL).

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

[5] Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs.

Table F-10c. Summary of Final Effluent Limitations for Discharge Point 003

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	159	--	--	

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	79	--	--	
pH	s.u.	--	--	6.5	8.5	E, BP
Total Suspended Solids (TSS)	mg/L	--	75	--	--	BPJ
	lbs/day[2]	--	397	--	--	
Non-Conventional Pollutants						
Chronic Toxicity[3]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--	BP
Settleable Solids	ml/L	--	0.3	--	--	BPJ
Temperature	deg. F	--	--	--	86	E, BP, WP, TP
Turbidity	NTU		75	--	--	BPJ
Total Petroleum Hydrocarbons (TPH)[4]	µg/L	--	100	--	--	BPJ
	lbs/day[2]	--	0.53	--	--	
Priority Pollutants						
Copper , Total Recoverable (All-weather)	µg/L	--	23	--	--	CTR, SIP
	lbs/day[2]	--	0.12	--	--	
Lead, Total Recoverable (All-weather)	µg/L	--	10	--	--	CTR, SIP
	lbs/day[2]	--	0.053	--	--	
Zinc, Total Recoverable (All-weather)	µg/L	--	185	--	--	CTR, SIP
	lbs/day[2]	--	0.98	--	--	

1 E= Order No. R4-2013-0021; BPJ = Best Professional Judgment; BP = Basin Plan; CTR = California Toxics Rule; SIP = State Implementation Policy; WP = White Paper; and TP= Thermal Plan.

2 Mass loading limitations are based on the permitted flow at Discharge Point 003 (0.634 million gallons per day (MGD)) and are calculated as follows:

Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

3 The maximum daily effluent limitation (MDEL) shall be reported as “Pass” or “Fail” and “% Effect”. The MDEL is exceeded when a toxicity test results in a “Fail,” and the percent effect is greater than or equal to 0.50. Report “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL).

4 TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

Table F-10d. Summary of Final Effluent Limitations for Discharge Point 004

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	395	--	--	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	198	--	--	
pH	s.u.	--	--	6.5	8.5	E, BP

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Total Suspended Solids (TSS)	mg/L	--	75	--	--	BPJ
	lbs/day[2]	--	988	--	--	
Non-Conventional Pollutants						
Chronic Toxicity[3]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--	BP
Settleable Solids	ml/L	--	0.3	--	--	BPJ
Temperature	deg. F	--	--	--	86	E, BP, WP, TP
Turbidity	NTU		75	--	--	BPJ
Total Petroleum Hydrocarbons (TPH)[4]	µg/L	--	100	--	--	BPJ
	lbs/day[2]	--	0.56	--	--	
Priority Pollutants						
Copper , Total Recoverable (Dry-weather)[5]	µg/L	--	58	--	--	TMDL
	lbs/day[1]	--	0.76	--	--	
Copper , Total Recoverable (Wet-weather)[5]	µg/L	--	14	--	--	TMDL
	lbs/day[1]	--	0.18	--	--	
Lead, Total Recoverable (Dry-weather)[5]	µg/L	--	32	--	--	TMDL
	lbs/day[1]	--	0.42	--	--	
Lead, Total Recoverable (Wet-weather)[5]	µg/L	--	77	--	--	TMDL
	lbs/day[1]	--	1.01	--	--	
Zinc, Total Recoverable (Dry-weather)[5]	µg/L	--	733	--	--	TMDL
	lbs/day[1]	--	9.66	--	--	
Zinc, Total Recoverable (Wet-weather)[5]	µg/L	--	105	--	--	TMDL
	lbs/day[1]	--	1.38	--	--	

1 E= Order No. R4-2013-0021; BPJ = Best Professional Judgment; BP = Basin Plan; CTR = California Toxics Rule; SIP = State Implementation Policy; TMDL = Total Maximum Daily Loads (Resolution No. R13-010); WP = White Paper; and TP= Thermal Plan.

2 Mass loading limitations are based on the permitted flow at Discharge Point 004 (1.58 million gallons per day (MGD)) and are calculated as follows:

Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

3 The maximum daily effluent limitation (MDEL) shall be reported as “Pass” or “Fail” and “% Effect”. The MDEL is exceeded when a toxicity test results in a “Fail,” and the percent effect is greater than or equal to 0.50. Report “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL).

4 TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

5 Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs.

Table F-10e. Summary of Final Effluent Limitations for Discharge Point 005

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	253	--	--	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	126	--	--	
pH	s.u.	--	--	6.5	8.5	E, BP
Total Suspended Solids (TSS)	mg/L	--	75	--	--	BPJ
	lbs/day[2]	--	632	--	--	
Non-Conventional Pollutants						
Chronic Toxicity[3]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--	BP
Settleable Solids	ml/L	--	0.3	--	--	BPJ
Temperature	deg. F	--	--	--	86	E, BP, WP, TP
Turbidity	NTU		75	--	--	BPJ
Total Petroleum Hydrocarbons (TPH)[4]	µg/L	--	100	--	--	BPJ
	lbs/day[2]	--	0.84	--	--	
Priority Pollutants						
Copper , Total Recoverable (Dry-weather)[5]	µg/L	--	58	--	--	TMDL
	lbs/day[1]	--	0.49	--	--	
Copper , Total Recoverable (Wet-weather)[5]	µg/L	--	14	--	--	TMDL
	lbs/day[1]	--	0.12	--	--	
Lead, Total Recoverable (Dry-weather)[5]	µg/L	--	32	--	--	TMDL
	lbs/day[1]	--	0.27	--	--	
Lead, Total Recoverable (Wet-weather)[5]	µg/L	--	77	--	--	TMDL
	lbs/day[1]	--	0.65	--	--	
Zinc, Total Recoverable (Dry-weather)[5]	µg/L	--	733	--	--	TMDL
	lbs/day[1]	--	6.17	--	--	
Zinc, Total Recoverable (Wet-weather)[5]	µg/L	--	105	--	--	TMDL
	lbs/day[1]	--	0.88	--	--	

1 E= Order No. R4-2013-0021; BPJ = Best Professional Judgment; BP = Basin Plan; CTR = California Toxics Rule; SIP = State Implementation Policy; TMDL = Total Maximum Daily Loads (Resolution No. R13-010); WP = White Paper; and TP= Thermal Plan.

2 Mass loading limitations are based on the permitted flow at Discharge Point 005 (1.01 million gallons per day (MGD)) and are calculated as follows:

Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

3 The maximum daily effluent limitation (MDEL) shall be reported as “Pass” or “Fail” and “% Effect”. The MDEL is exceeded when a toxicity test results in a “Fail,” and the percent effect is greater than or equal to 0.50. Report “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL).

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

[5] Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs.

Table F-10f. Summary of Final Effluent Limitations for Discharge Point 006

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand (BOD) (5-day @ 20 deg. C)	mg/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	150	--	--	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	75	--	--	
pH	s.u.	--	--	6.5	8.5	E, BP
Total Suspended Solids (TSS)	mg/L	--	75	--	--	BPJ
	lbs/day[2]	--	375	--	--	
Non-Conventional Pollutants						
Chronic Toxicity[3]	Pass or Fail, % Effect	--	Pass or % Effect < 50	--	--	BP
Settleable Solids	ml/L	--	0.3	--	--	BPJ
Temperature	deg. F	--	--	--	86	E, BP, WP, TP
Turbidity	NTU		75	--	--	BPJ
Total Petroleum Hydrocarbons (TPH)[4]	µg/L	--	100	--	--	BPJ
	lbs/day[2]	--	0.50	--	--	
Priority Pollutants						
Copper , Total Recoverable (Dry-weather)[5]	µg/L	--	58	--	--	TMDL
	lbs/day[1]	--	0.29	--	--	
Copper , Total Recoverable (Wet-weather)[5]	µg/L	--	14	--	--	TMDL
	lbs/day[1]	--	0.070	--	--	
Lead, Total Recoverable (Dry-weather)[5]	µg/L	--	32	--	--	TMDL
	lbs/day[1]	--	0.16	--	--	
Lead, Total Recoverable (Wet-weather)[5]	µg/L	--	77	--	--	TMDL
	lbs/day[1]	--	0.39	--	--	
Mercury , Total Recoverable (All-weather)	µg/L	--	0.10	--	--	CTR, SIP
	lbs/day[1]	--	0.00050	--	--	
Zinc, Total Recoverable (Dry-weather)[5]	µg/L	--	733	--	--	TMDL
	lbs/day[1]	--	3.67	--	--	
Zinc, Total Recoverable (Wet-weather)[5]	µg/L	--	105	--	--	TMDL
	lbs/day[1]	--	0.53	--	--	

[1] E= Order No. R4-2013-0021; BPJ = Best Professional Judgment; BP = Basin Plan; CTR = California Toxics Rule; SIP = State Implementation Policy; TMDL = Total Maximum Daily Loads (Resolution No. R13-010); WP = White Paper; and TP= Thermal Plan.

[2] Mass loading limitations are based on the permitted flow at Discharge Point 006 (0.6 million gallons per day (MGD)) and are calculated as follows:

Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

[3] The maximum daily effluent limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect". The MDEL is exceeded when a toxicity test results in a "Fail," and the percent effect is greater than or equal to 0.50. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL).

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

[5] Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Recycling 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 (40 C.F.R. section 131.12) and State Water Board Resolution No. 68-16 (the anti-degradation policies). Receiving water limitations in this Order are included to ensure protection of the beneficial uses of the receiving water. If there is reasonable potential or a U.S. EPA-approved TMDL WLA, then WQBELs are included in this Order to ensure protection of those water quality standards.

B. Groundwater – Not Applicable

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. 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.

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. 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. 40 C.F.R. section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. 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 40 C.F.R part 123 and Order No. R4-2013-0021. The Regional Water Board may reopen the permit to modify permit conditions and

requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan or adoption of applicable TMDLs associated with the receiving water.

2. Special Studies and Additional Monitoring Requirements

a. **Initial Investigation Toxicity Reduction Evaluation (TRE) 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.

b. **Effluent Sediment Monitoring.** The Discharger shall monitor the effluent sediments to demonstrate compliance with the sediment limitations as listed in Table 5 of the Order as per the Ballona Creek Estuary Toxic Pollutants TMDL. Since the TSS concentration in the final discharge may be less than the TSS effluent limitation of 75 mg/L, a large volume of effluent sample may be required to gather enough sediments for the required analyses (metals and organics). Therefore, high resolution analytical methods (EPA approved) may be used to analyze specific constituents in the sediments. The Discharger may submit a work plan for Executive Officer's approval if high resolution analytical methods will be used for sediment analyses.

3. Best Management Practices and Storm Water Pollution Prevention

a. **Storm Water Pollution Prevention Plan (SWPPP).** This Order requires the Discharger to update, as necessary, and continue to implement a SWPPP. The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing trash and contaminated storm water runoff from being discharged directly into the receiving water. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water, and to prevent the entrainment of trash in storm water that is discharged through Discharge Points. SWPPP requirements are included as Attachment G, based on 40 C.F.R. section 122.44(k).

b. **Best Management Practices Plan (BMPP).** This Order requires the Discharger to develop and implement a BMPP. The BMPP may be included as a component of the SWPPP. 40 C.F.R. section 122.44(k) requires that permits include best management practices when reasonably necessary to achieve the effluent limitations and standards or to carry out the purpose and intent of the CWA. Consistent with 40 C.F.R. section 122.44(k), this Order requires the Discharger to update and implement a BMPP. The purpose of the BMPP is to establish site-specific procedures that minimize the potential of hazardous waste/materials and other contaminates to discharge to surface waters. The BMPP shall incorporate the requirements contained in Attachment G. Attachment G requires a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges. The BMPP may be included in the SWPPP.

c. **Spill Contingency Plan (SCP).** This Order requires the Discharger to develop and implement a SCP to control the discharge of pollutants. The SCP shall include a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site. This provision is included in this Order to minimize and control the amount of pollutants discharged in case of a spill. The SCP shall be site specific and shall cover all areas of the Facility. A Spill Prevention, Control, and Countermeasure (SPCC) Plan may satisfy this requirement.

4. Construction, Operation, and Maintenance Specifications

This provision is based on the requirements of 40 C.F.R section 122.41(e).

5. Other Special Provisions – Not Applicable

6. Compliance Schedules – Not Applicable

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that 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

Effluent monitoring for pollutants expected to be present in the discharge will be required at Monitoring Locations EFF-001 through EFF-006 as prescribed in the MRP (Attachment E). To demonstrate compliance with established effluent limitations, monitoring frequency for those pollutants with effluent limitations is once per discharge event, but no more than once per week or any 7-day period. These parameters include total flow, pH, temperature, BOD, oil and grease, settleable solids, TSS, turbidity, TPH, mercury, copper, lead, selenium, zinc, bis(2-ethylhexyl)phthalate and cyanide. Chronic toxicity monitoring is required once per year at each discharge point if a discharge occurs at that location. Monitoring for additional pollutants including ammonia, nitrite, nitrate, E coli, methyl tertiary butyl ether (MTBE) and phenols is also required once per year based on considerations of pollutants commonly associated with similar operations.

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

To implement the requirements in the Toxic Pollutants TMDL for Ballona Creek Estuary, this Order requires annual sediment monitoring at each discharge point if any storm water runoff is discharged during that year.

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. A chronic toxicity test measures mortality, reproduction, and growth. A chemical at a low concentration can have chronic effects but no acute effects. Chronic toxicity is a more stringent requirement that acute toxicity. For this Order, chronic toxicity monitoring in the discharge is required. The chronic toxicity testing results are analyzed using U.S. EPA's 2010 TST statistical approach.

D. Receiving Water Monitoring

1. Surface Water Monitoring

The SIP requires monitoring of the receiving water for the CTR priority pollutants, including TCDD equivalents, to determine reasonable potential. This Order requires the Discharger to monitor the receiving water for pH, temperature, hardness, turbidity, dissolved oxygen, ammonia, and priority pollutants (including TCDD equivalents) of the receiving water at upstream Monitoring Stations (RSW-001 and RSW-003) once per year. Additionally, the Discharger must analyze pH, temperature, hardness, turbidity, dissolved oxygen, ammonia and E coli at the downstream Monitoring Stations (RSW-002 and RSW-004) to determine compliance with the receiving water limitations. Semiannual monitoring for pH, temperature and ammonia in the downstream monitoring stations is required for the determination of compliance with the ammonia water quality objective in the receiving water. The pH and temperature data in the receiving waters are required in the establishment of ammonia effluent limitations if the effluent ammonia concentration demonstrates the presence of a reasonable potential in the future.

The Discharger must provide maximum daily flow data in the Ballona Creek with the quarterly monitoring reports for the days when discharges occur at the Facility. Flow data for the Ballona Creek is currently monitored between Sawtelle Boulevard and Sepulveda Boulevard by the Los Angeles County Department of Public Works at Stream Gage No. F38C-R. This station is designated as RSW-005 in this Order. This information is necessary to determine the wet-weather and dry-weather conditions as defined in the Ballona Creek Metals TMDL.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements

1. Storm Water Monitoring

The discharge is comprised of storm water runoff. As such, 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 to observe the presence of floating and suspended materials, trash, oil and grease, discoloration, turbidity, and odor.

VIII. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the Lubricating Specialties Company, Pico Rivera Facility. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following: email and local newspaper; and documents relevant to the tentative permit were also available on the Regional Water Board website. Similarly, the public had access to the agenda and any changes in dates and locations through the Regional Water Board's website at:

http://www.waterboards.ca.gov/losangeles.

B. Written Comments

Interested persons were invited to submit written comments concerning the tentative WDRs as provided through the notification process. Comments were required to be submitted either in

person or by mail to the Executive Officer at the Regional Water Board at 320 West 4th Street, Suite 200, Los Angeles, CA 90013, or by email to losangeles@waterboards.ca.gov with a copy to jauren.chen@waterboards.ca.gov.

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board office by 5:00 p.m. January 5, 2018.

C. Public Hearing

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

Date: February 8, 2018
Time: 9:00 a.m.
Location: Metropolitan Water District, Board Room
700 North Alameda Street,
Los Angeles, California

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

D. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100
Sacramento, CA 95812-0100

Or by email to: waterqualitypetitions@waterboards.ca.gov

For instructions on how to file a petition for review, see

http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml.

E. Information and Copying

The Report of Waste Discharge (ROWD), tentative WDRs, comments received, and other supporting documents are on file and the electronic copies may be assessed in the CIWQS database or on the Los Angeles Regional Water Quality Control Board website at www.waterboards.ca.gov/losangeles. Hard copies may be inspected at the Regional Water Board's office at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Viewing and copying of documents may be arranged through the Regional Water Board by calling (213) 576 – 6600.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Jau Ren Chen at jauren.chen@waterboards.ca.gov or at (213)576-6656.

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 no later than 90 days 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, overhead 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 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 permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators

whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

IV. SITE MAP

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

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

PLANNING AND ORGANIZATION
Form Pollution Prevention Team
Review other plans

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

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE
Non-structural BMPs
Structural BMPs
Select activity and site-specific BMPs

IMPLEMENTATION PHASE
Train employees
Implement BMPs
Conduct recordkeeping and reporting

EVALUATION / MONITORING
Conduct annual site evaluation
Review monitoring information
Evaluate BMPs
Review and revise SWPPP

The following information shall be included on the site map:

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

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

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

D. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in section VI.A.4 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[1] handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

VI. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES

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

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

2. **Material Handling and Storage Areas.** Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response

[1] "Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

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 authorized non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 Code of Federal Regulations (C.F.R.) part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 C.F.R., 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 authorized non-storm water discharges and associated drainage area.

   Non-storm water discharges that are not authorized by this Permit, other waste discharge requirements, or other NPDES permits are prohibited. The SWPPP must include BMPs to prevent or reduce contact of authorized non-storm water discharges with significant materials (as defined in Footnote 1 of section V above) 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.

7. **Trash.** Describe the facility locations where trash may be generated as a result of facility operations and on-site activities.

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 VIII. 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 section VI above to determine:

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

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

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

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

VIII. STORM WATER BEST MANAGEMENT PRACTICES

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

TABLE B

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

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

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

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

A. Non-Structural BMPs

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

1. **Good Housekeeping.** Good housekeeping generally consists of practical procedures to maintain a clean and orderly facility.
2. **Preventive Maintenance.** Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.
3. **Spill Response.** This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.
4. **Material Handling and Storage.** This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.
5. **Employee Training.** This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.
6. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.
7. **Recordkeeping and Internal Reporting.** This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.
8. **Erosion Control and Site Stabilization.** This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.
9. **Inspections.** This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

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

B. Structural BMPs.

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

1. **Overhead Coverage.** This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.
2. **Retention Ponds.** This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.
3. **Control Devices.** This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.
4. **Secondary Containment Structures.** This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.
5. **Treatment.** This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

IX. ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 10 days of the approval by the Executive Officer or no later than 90 days after submission to the Regional Water Board, whichever comes first. . 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 X.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 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.B.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 (MICROGRAMS/LITER (µG/L))

The Minimum Levels (MLs) in this Attachment 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		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
1,3 Dichlorobenzene (semivolatile)	2	1		
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	

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
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	Analytical Methods
1	Antimony	7440360	[1]
2	Arsenic	7440382	[1]
3	Beryllium	7440417	[1]
4	Cadmium	7440439	[1]
5a	Chromium (III)	16065831	[1]
5a	Chromium (VI)	18540299	[1]
6	Copper	7440508	[1]
7	Lead	7439921	[1]
8	Mercury	7439976	[1]
9	Nickel	7440020	[1]
11	Selenium	7782492	[1]
11	Silver	7440224	[1]
12	Thallium	7440280	[1]
13	Zinc	7440666	[1]
14	Cyanide	57125	[1]
15	Asbestos	1332214	[1]
16	2,3,7,8-TCDD	1746016	[1]
17	Acrolein	117028	[1]
18	Acrylonitrile	117131	[1]
19	Benzene	71432	[1]
20	Bromoform	75252	[1]
21	Carbon Tetrachloride	56235	[1]
22	Chlorobenzene	118907	[1]
23	Chlorodibromomethane	124481	[1]
24	Chloroethane	75003	[1]
25	2-Chloroethylvinyl Ether	111758	[1]
26	Chloroform	67663	[1]
27	Dichlorobromomethane	75274	[1]
28	1,1-Dichloroethane	75343	[1]
29	1,2-Dichloroethane	117062	[1]
30	1,1-Dichloroethylene	75354	[1]
31	1,2-Dichloropropane	78875	[1]
32	1,3-Dichloropropylene	542756	[1]
33	Ethylbenzene	110414	[1]
34	Methyl Bromide	74839	[1]
35	Methyl Chloride	74873	[1]
36	Methylene Chloride	75092	[1]
37	1,1,2,2-Tetrachloroethane	79345	[1]
38	Tetrachloroethylene	127184	[1]
39	Toluene	118883	[1]
40	1,2-Trans-Dichloroethylene	156605	[1]
41	1,1,1-Trichloroethane	71556	[1]
42	1,12-Trichloroethane	79005	[1]
43	Trichloroethylene	79016	[1]
44	Vinyl Chloride	75014	[1]
45	2-Chlorophenol	95578	[1]
46	2,4-Dichlorophenol	120832	[1]
47	2,4-Dimethylphenol	115679	[1]

CTR Number	Parameter	CAS Number	Analytical Methods
48	2-Methyl-4,6-Dinitrophenol	534521	[1]
49	2,4-Dinitrophenol	51285	[1]
50	2-Nitrophenol	88755	[1]
51	4-Nitrophenol	110027	[1]
52	3-Methyl-4-Chlorophenol	59507	[1]
53	Pentachlorophenol	87865	[1]
54	Phenol	118952	[1]
55	2,4,6-Trichlorophenol	88062	[1]
56	Acenaphthene	83329	[1]
57	Acenaphthylene	208968	[1]
58	Anthracene	120127	[1]
59	Benzidine	92875	[1]
60	Benzo(a)Anthracene	56553	[1]
61	Benzo(a)Pyrene	50328	[1]
62	Benzo(b)Fluoranthene	205992	[1]
63	Benzo(ghi)Perylene	191242	[1]
64	Benzo(k)Fluoranthene	207089	[1]
65	Bis(2-Chloroethoxy)Methane	111911	[1]
66	Bis(2-Chloroethyl)Ether	111444	[1]
67	Bis(2-Chloroisopropyl)Ether	118601	[1]
68	Bis(2-Ethylhexyl)Phthalate	117817	[1]
69	4-Bromophenyl Phenyl Ether	111553	[1]
70	Butylbenzyl Phthalate	85687	[1]
71	2-Chloronaphthalene	91587	[1]
72	4-Chlorophenyl Phenyl Ether	7005723	[1]
73	Chrysene	218019	[1]
74	Dibenzo(a,h)Anthracene	53703	[1]
75	1,2-Dichlorobenzene	95501	[1]
76	1,3-Dichlorobenzene	541731	[1]
77	1,4-Dichlorobenzene	116467	[1]
78	3,3'-Dichlorobenzidine	91941	[1]
79	Diethyl Phthalate	84662	[1]
80	Dimethyl Phthalate	131113	[1]
81	Di-n-Butyl Phthalate	84742	[1]
82	2,4-Dinitrotoluene	121142	[1]
83	2,6-Dinitrotoluene	606202	[1]
84	Di-n-Octyl Phthalate	117840	[1]
85	1,2-Diphenylhydrazine	122667	[1]
86	Fluoranthene	206440	[1]
87	Fluorene	86737	[1]
88	Hexachlorobenzene	118741	[1]
89	Hexachlorobutadiene	87863	[1]
90	Hexachlorocyclopentadiene	77474	[1]
91	Hexachloroethane	67721	[1]
92	Indeno(1,2,3-cd)Pyrene	193395	[1]
93	Isophorone	78591	[1]
94	Naphthalene	91203	[1]
95	Nitrobenzene	98953	[1]
96	N-Nitrosodimethylamine	62759	[1]
97	N-Nitrosodi-n-Propylamine	621647	[1]
98	N-Nitrosodiphenylamine	86306	[1]
99	Phenanthrene	85018	[1]

CTR Number	Parameter	CAS Number	Analytical Methods
100	Pyrene	129000	[1]
101	1,2,4-Trichlorobenzene	120821	[1]
102	Aldrin	309002	[1]
103	Alpha-BHC	319846	[1]
104	Beta-BHC	319857	[1]
105	Gamma-BHCc	58899	[1]
106	Delta-BHC	319868	[1]
107	Chlordane	57749	[1]
108	4,4'-DDT	50293	[1]
109	4,4'-DDE	72559	[1]
110	4,4'-DDD	72548	[1]
111	Dieldrin	60571	[1]
112	Alpha-Endosulfan	959988	[1]
113	Beta-Endosulfan	33213659	[1]
114	Endosulfan Sulfate	1131178	[1]
115	Endrin	72208	[1]
116	Endrin Aldehyde	7421934	[1]
117	Heptachlor	76448	[1]
118	Heptachlor Epoxide	1124573	[1]
119	PCB-1016	12674112	[1]
120	PCB-1221	11104282	[1]
121	PCB-1232	11141165	[1]
122	PCB-1242	53469219	[1]
123	PCB-1248	12672296	[1]
124	PCB-1254	11097691	[1]
125	PCB-1260	11096825	[1]
126	Toxaphene	8001352	[1]

[1] Pollutants shall be analyzed using the methods described in 40 C.F.R. part 136.

ATTACHMENT J – SUMMARY OF EFFLUENT LIMITATION CALCULATIONS

Attachment J
Reasonable Potential Analysis and Effluent Limitations
Inglewood Oil Field, Discharge Point 001

					CTR Water Quality Criteria (ug/L)													
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL* (Not Applicable)							
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)	Lowest C or WLAs	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) (ug/L)
1	Antimony	ug/L		2.2						4300.00			4300.00	No	No	Y	N	
2	Arsenic	ug/L		26	340.00	150.00							150.00	No	No	Y	N	
3	Beryllium	ug/L		No Criteria						Narrative			No Criteria	No Criteria	No Criteria	Y	Y	0.25
4	Cadmium	ug/L		0.57	8.03	3.67				Narrative			3.67	No	No	Y	Y	0.25
5a	Chromium (III)			2.5	2636.43	314.25				Narrative			314.25	No	No	Y	N	
5b	Chromium (VI)	ug/L		0.42	16.00	11.00				Narrative			11.00	No	No	Y	N	
6	Copper, All Weather	ug/L	1.19	58	22.63	14.42							14.42	Yes	Yes	Y	N	
7	Lead, All Weather	ug/L	1.87	43	156.24	6.09				Narrative			6.09	Yes	Yes	Y	N	
8	Mercury	ug/L	0.6		Reserved	Reserved				0.05			0.05			Y	Y	0.1
9	Nickel	ug/L		28	722.19	80.29				4600.00			80.29	No	No	Y	N	
10	Selenium	ug/L		3.8		5.00				Narrative			5.00	No	No	Y	Y	0.5
11	Silver	ug/L		1	9.76								9.76	No	No	Y	Y	0.5
12	Thallium	ug/L		1						6.30			6.30	No	No	Y	Y	0.5
13	Zinc, All Weather	ug/L	1.25	200	184.55	184.55							184.55	Yes	Yes	Y	N	
14	Cyanide	ug/L	0.6	10	22.00	5.20				220000			5.20	Yes	Yes	Y	Y	3
15	Asbestos	MFL		No Criteria									No Criteria	No Criteria	No Criteria	N		
16	2,3,7,8 TCDD	ug/L								1.40E-08			0.00			Y	Y	0.0000096
17	Acrolein	ug/L		0.5						780.00			780.00	No	No	Y	Y	2.5
18	Acrylonitrile	ug/L								0.66			0.66			Y	Y	1
19	Benzene	ug/L		0.5						71.00			71.00	No	No	Y	Y	0.25
20	Bromoform	ug/L		1						360.00			360.00	No	No	Y	Y	0.25
21	Carbon Tetrachloride	ug/L		0.5						4.40			4.40	No	No	Y	Y	0.25
22	Chlorobenzene	ug/L		0.5						21000.00			21000.00	No	No	Y	Y	0.25
23	Chlorodibromomethane	ug/L		1						34.00			34.00	No	No	Y	Y	0.25
24	Chloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
25	2-Chloroethylvinyl ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1
26	Chloroform	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
27	Dichlorobromomethane	ug/L		0.5						46.00			46.00	No	No	Y	Y	0.25
28	1,1-Dichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
29	1,2-Dichloroethane	ug/L		0.5						99.00			99.00	No	No	Y	Y	0.25
30	1,1-Dichloroethylene	ug/L		0.5						3.20			3.20	No	No	Y	Y	0.25
31	1,2-Dichloropropane	ug/L		0.5						39.00			39.00	No	No	Y	Y	0.25
32	1,3-Dichloropropylene	ug/L		1						1700.00			1700.00	No	No	Y	Y	0.25
33	Ethylbenzene	ug/L		0.5						29000.00			29000.00	No	No	Y	Y	0.25
34	Methyl Bromide	ug/L		0.5						4000.00			4000.00	No	No	Y	Y	0.25
35	Methyl Chloride	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
36	Methylene Chloride	ug/L		2						1600.00			1600.00	No	No	Y	Y	0.88
37	1,1,2,2-Tetrachloroethane	ug/L		0.5						11.00			11.00	No	No	Y	Y	0.25
38	Tetrachloroethylene	ug/L		1						8.85			8.85	No	No	Y	Y	0.25
39	Toluene	ug/L		0.5						200000.00			200000.00	No	No	Y	Y	0.25
40	1,2-Trans-Dichloroethylene	ug/L								140000.00			140000.00			Y	Y	0.25
41	1,1,1-Trichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
42	1,1,2-Trichloroethane	ug/L		0.5						42.00			42.00	No	No	Y	Y	0.25
43	Trichloroethylene	ug/L		1						81.00			81.00	No	No	Y	Y	0.25
44	Vinyl Chloride	ug/L		0.5						525.00			525.00	No	No	Y	Y	0.25
45	2-Chlorophenol	ug/L		1						400.00			400.00	No	No	Y	Y	0.48
46	2,4-Dichlorophenol	ug/L		2						790.00			790.00	No	No	Y	Y	0.95
47	2,4-Dimethylphenol	ug/L		2						2300.00			2300.00	No	No	Y	Y	0.95
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L								765.00			765.00			Y	Y	1.9
49	2,4-Dinitrophenol	ug/L		5						14000.00			14000.00	No	No	Y	Y	1.9
50	2-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.95
51	4-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
53	Pentachlorophenol	ug/L		1	11.79	9.05				8.20			8.20	No	No	Y	N	
54	Phenol	ug/L		0.05						4600000.00			4600000.00	No	No	Y	Y	0.48
55	2,4,6-Trichlorophenol	ug/L		1						6.50			6.50	No	No	Y	Y	0.48
56	Acenaphthene	ug/L		0.5						2700.00			2700.00	No	No	Y	Y	0.19
57	Acenaphthylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
58	Anthracene	ug/L		0.5						110000.00			110000.00	No	No	Y	Y	0.1
59	Benzidine	ug/L								0.00			0.00			Y	Y	4.8
60	Benzo(a)Anthracene	ug/L								0.05			0.05			Y	Y	1.9
61	Benzo(a)Pyrene	ug/L								0.05			0.05			Y	Y	0.48
62	Benzo(b)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.95
63	Benzo(ghi)Perylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9
64	Benzo(k)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.24
65	Bis(2-Chloroethoxy)Methane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
66	Bis(2-Chloroethyl)Ether	ug/L		0.5						1.40			1.40	No	No	Y	Y	0.19

		REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS					
								Organisms only					Sa
CTR#	Parameters	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier
1	Antimony	2.6		B<=C, Step 7		No	MEC<C & B<=C						
2	Arsenic	1.4		B<=C, Step 7		No	MEC<C & B<=C						
3	Beryllium		N	No Criteria	No Criteria	Uc	No Criteria						
4	Cadmium		N	No detected value of B, Step 7		No	MEC<C & B is ND						
5a	Chromium (III)	2.04		B<=C, Step 7		No	MEC<C & B<=C						
5b	Chromium (VI)	0.46		B<=C, Step 7		No	MEC<C & B<=C						
6	Copper, All Weather	20.3		Limit required, B>C & pollutant detected in effluent		Yes	MEC>=C		2.69		0.18	3.97	0.32
7	Lead, All Weather	16		Limit required, B>C & pollutant detected in effluent		Yes	MEC>=C		3.04		0.12	19.10	0.22
8	Mercury		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
9	Nickel	3.7		B<=C, Step 7		No	MEC<C & B<=C						
10	Selenium		N	No detected value of B, Step 7		No	MEC<C & B is ND						
11	Silver		N	No detected value of B, Step 7		No	MEC<C & B is ND						
12	Thallium		N	No detected value of B, Step 7		No	MEC<C & B is ND						
13	Zinc, All Weather	130		B<=C, Step 7		Yes	MEC>=C		2.73		0.17	30.95	0.31
14	Cyanide		N	No detected value of B, Step 7		Yes	MEC>=C	220000	2.01	441362	0.32	7.06	0.53
15	Asbestos			No Criteria	No Criteria	Uc	No Criteria						
16	2,3,7,8 TCDD		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
17	Acrolein		N	No detected value of B, Step 7		No	MEC<C & B is ND						
18	Acrylonitrile		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
19	Benzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
20	Bromoform		N	No detected value of B, Step 7		No	MEC<C & B is ND						
21	Carbon Tetrachloride		N	No detected value of B, Step 7		No	MEC<C & B is ND						
22	Chlorobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
23	Chlorodibromomethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
24	Chloroethane		N	No Criteria	No Criteria	Uc	No Criteria						
25	2-Chloroethylvinyl ether		N	No Criteria	No Criteria	Uc	No Criteria						
26	Chloroform		N	No Criteria	No Criteria	Uc	No Criteria						
27	Dichlorobromomethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
28	1,1-Dichloroethane		N	No Criteria	No Criteria	Uc	No Criteria						
29	1,2-Dichloroethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
30	1,1-Dichloroethylene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
31	1,2-Dichloropropane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
32	1,3-Dichloropropylene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
33	Ethylbenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
34	Methyl Bromide		N	No detected value of B, Step 7		No	MEC<C & B is ND						
35	Methyl Chloride		N	No Criteria	No Criteria	Uc	No Criteria						
36	Methylene Chloride		N	No detected value of B, Step 7		No	MEC<C & B is ND						
37	1,1,2,2-Tetrachloroethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
38	Tetrachloroethylene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
39	Toluene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
40	1,2-Trans-Dichloroethylene		N	No detected value of B, Step 7		ud	No effluent data & B is ND						
41	1,1,1-Trichloroethane		N	No Criteria	No Criteria	Uc	No Criteria						
42	1,1,2-Trichloroethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
43	Trichloroethylene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
44	Vinyl Chloride		N	No detected value of B, Step 7		No	MEC<C & B is ND						
45	2-Chlorophenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
46	2,4-Dichlorophenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
47	2,4-Dimethylphenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)		N	No detected value of B, Step 7		ud	No effluent data & B is ND						
49	2,4-Dinitrophenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
50	2-Nitrophenol		N	No Criteria	No Criteria	Uc	No Criteria						
51	4-Nitrophenol		N	No Criteria	No Criteria	Uc	No Criteria						
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)		N	No Criteria	No Criteria	Uc	No Criteria						
53	Pentachlorophenol	1.6		B<=C, Step 7		No	MEC<C & B<=C						
54	Phenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
55	2,4,6-Trichlorophenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
56	Acenaphthene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
57	Acenaphthylene		N	No Criteria	No Criteria	Uc	No Criteria						
58	Anthracene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
59	Benzidine		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
60	Benzo(a)Anthracene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
61	Benzo(a)Pyrene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
62	Benzo(b)Fluoranthene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND						
63	Benzo(ghi)Perylene		N	No Criteria	No Criteria	Uc	No Criteria						
64	Benzo(k)Fluoranthene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
65	Bis(2-Chloroethoxy)Methane		N	No Criteria	No Criteria	Uc	No Criteria						
66	Bis(2-Chloroethyl)Ether		N	No detected value of B, Step 7		No	MEC<C & B is ND						

		AQUATIC LIFE CALCULATIONS						LIMITS		
CTR#		ltwater / Freshwater / Basin Plan								
	Parameters	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL	Recommendation
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, All Weather	4.67	3.97	2.12	8.42	5.71	22.63	8.42	**22.63**	Limit Needed
7	Lead, All Weather	1.32	1.32	2.69	3.55	8.18	10.77	3.55	**10.77**	Limit Needed
8	Mercury									No Limit
9	Nickel									No Limit
10	Selenium									No Limit
11	Silver									No Limit
12	Thallium									No Limit
13	Zinc, All Weather	57.25	30.95	2.18	67.49	5.96	184.55	67.49	**184.55**	Limit Needed
14	Cyanide	2.74	2.74	1.55	4.26	3.11	8.54	4.26	**8.54**	Limit Needed
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
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

					CTR Water Quality Criteria (ug/L)													
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL* (Not Applicable)							
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)	Lowest C or WLAs	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) (ug/L)
67	Bis(2-Chloroisopropyl)Ether	ug/L		5						170000.00			170000.00	No	No	Y	Y	0.19
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	24.2						5.90			5.90	Yes	Yes	Y	N	
69	4-Bromophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.48
70	Butylbenzyl Phthalate	ug/L								5200.00			5200.00			Y	Y	1.9
71	2-Chloronaphthalene	ug/L		0.5						4300.00			4300.00	No	No	Y	Y	0.19
72	4-Chlorophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
73	Chrysene	ug/L								0.05			0.05			Y	Y	0.19
74	Dibenzo(a,h)Anthracene	ug/L								0.05			0.05			Y	Y	0.24
75	1,2-Dichlorobenzene	ug/L		0.5						17000.00			17000.00	No	No	Y	Y	0.19
76	1,3-Dichlorobenzene	ug/L		0.5						2600.00			2600.00	No	No	Y	Y	0.19
77	1,4-Dichlorobenzene	ug/L		0.5						2600.00			2600.00	No	No	Y	Y	0.19
78	3,3 Dichlorobenzidine	ug/L								0.08			0.08			Y	Y	1.9
79	Diethyl Phthalate	ug/L		1						120000.00			120000.00	No	No	Y	N	
80	Dimethyl Phthalate	ug/L		0.5						2900000.00			2900000.00	No	No	Y	Y	0.24
81	Di-n-Butyl Phthalate	ug/L		2						12000.00			12000.00	No	No	Y	Y	0.95
82	2,4-Dinitrotoluene	ug/L		5						9.10			9.10	No	No	Y	Y	1.9
83	2,6-Dinitrotoluene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9
84	Di-n-Octyl Phthalate	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	N	
85	1,2-Diphenylhydrazine	ug/L								0.54			0.54			Y	Y	0.48
86	Fluoranthene	ug/L		5						370.00			370.00	No	No	Y	Y	0.19
87	Fluorene	ug/L		5						14000.00			14000.00	No	No	Y	Y	0.19
88	Hexachlorobenzene	ug/L								0.00			0.00			Y	Y	0.48
89	Hexachlorobutadiene	ug/L		1						50.00			50.00	No	No	Y	Y	0.48
90	Hexachlorocyclopentadiene	ug/L		5						17000.00			17000.00	No	No	Y	Y	1.9
91	Hexachloroethane	ug/L		1						8.90			8.90	No	No	Y	Y	0.48
92	Indeno(1,2,3-cd)Pyrene	ug/L								0.05			0.05			Y	Y	0.95
93	Isophorone	ug/L		1						600.00			600.00	No	No	Y	Y	0.48
94	Naphthalene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.48
95	Nitrobenzene	ug/L		1						1900.00			1900.00	No	No	Y	Y	0.48
96	N-Nitrosodimethylamine	ug/L		2						8.10			8.10	No	No	Y	Y	0.95
97	N-Nitrosodi-n-Propylamine	ug/L								1.40			1.40			Y	Y	0.95
98	N-Nitrosodiphenylamine	ug/L		1						16.00			16.00	No	No	Y	Y	0.48
99	Phenanthrene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
100	Pyrene	ug/L		0.5						11000.00			11000.00	No	No	Y	Y	0.19
101	1,2,4-Trichlorobenzene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.48
102	Aldrin	ug/L			3.00					0.00			0.00			Y	Y	0.0014
103	alpha-BHC	ug/L		0.005						0.01			0.01	No	No	Y	Y	0.0024
104	beta-BHC	ug/L		0.01						0.05			0.05	No	No	Y	Y	0.0038
105	gamma-BHC	ug/L		0.01	0.95					0.06			0.06	No	No	Y	Y	0.0029
106	delta-BHC	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.0033
107	Chlordane	ug/L			2.40	0.00				0.00			0.00			Y	Y	0.076
108	4,4'-DDT	ug/L			1.10	0.00				0.00			0.00			Y	Y	0.0038
109	4,4'-DDE (linked to DDT)	ug/L								0.00			0.00			Y	Y	0.0029
110	4,4'-DDD	ug/L								0.00			0.00			Y	Y	0.0038
111	Dieldrin	ug/L			0.24	0.06				0.00			0.00			Y	Y	0.0019
112	alpha-Endosulfan	ug/L	0.6	0.005	0.22	0.06				240.00			0.06	No	No	Y	Y	0.0029
113	beta-Endolsulfan	ug/L		0.005	0.22	0.06				240.00			0.06	No	No	Y	Y	0.0019
114	Endosulfan Sulfate	ug/L		0.01						240.00			240.00	No	No	Y	Y	0.0029
115	Endrin	ug/L		0.005	0.09	0.04				0.81			0.04	No	No	Y	Y	0.0019
116	Endrin Aldehyde	ug/L		0.01						0.81			0.81	No	No	Y	Y	0.0019
117	Heptachlor	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0029
118	Heptachlor Epoxide	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0024
119-125	PCBs sum (2)	ug/L				0.01				0.00			0.00			Y	Y	0.25
126	Toxaphene	ug/L			0.73	0.00				0.00			0.00			Y	Y	0.25

		REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS					
								Organisms only					Sa
CTR#	Parameters	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier
67	Bis(2-Chloroisopropyl)Ether		N	No detected value of B, Step 7		No	MEC<C & B is ND						
68	Bis(2-Ethylhexyl)Phthalate	5.5		B<=C, Step 7		Yes	MEC>=C	5.9	2.01	11.83652			
69	4-Bromophenyl Phenyl Ether		N	No Criteria	No Criteria	Uc	No Criteria						
70	Butylbenzyl Phthalate		N	No detected value of B, Step 7		ud	No effluent data & B is ND						
71	2-Chloronaphthalene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
72	4-Chlorophenyl Phenyl Ether		N	No Criteria	No Criteria	Uc	No Criteria						
73	Chrysene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
74	Dibenzo(a,h)Anthracene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
75	1,2-Dichlorobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
76	1,3-Dichlorobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
77	1,4-Dichlorobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
78	3,3 Dichlorobenzidine		Y	No detected value of B, Step 7		ud	No effluent data & B is ND						
79	Diethyl Phthalate	0.53		B<=C, Step 7		No	MEC<C & B<=C						
80	Dimethyl Phthalate		N	No detected value of B, Step 7		No	MEC<C & B is ND						
81	Di-n-Butyl Phthalate		N	No detected value of B, Step 7		No	MEC<C & B is ND						
82	2,4-Dinitrotoluene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
83	2,6-Dinitrotoluene		N	No Criteria	No Criteria	Uc	No Criteria						
84	Di-n-Octyl Phthalate	4		No Criteria	No Criteria	Uc	No Criteria						
85	1,2-Diphenylhydrazine		N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
86	Fluoranthene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
87	Fluorene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
88	Hexachlorobenzene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
89	Hexachlorobutadiene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
90	Hexachlorocyclopentadiene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
91	Hexachloroethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
92	Indeno(1,2,3-cd)Pyrene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
93	Isophorone		N	No detected value of B, Step 7		No	MEC<C & B is ND						
94	Naphthalene		N	No Criteria	No Criteria	Uc	No Criteria						
95	Nitrobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
96	N-Nitrosodimethylamine		N	No detected value of B, Step 7		No	MEC<C & B is ND						
97	N-Nitrosodi-n-Propylamine		N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
98	N-Nitrosodiphenylamine		N	No detected value of B, Step 7		No	MEC<C & B is ND						
99	Phenanthrene		N	No Criteria	No Criteria	Uc	No Criteria						
100	Pyrene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
101	1,2,4-Trichlorobenzene		N	No Criteria	No Criteria	Uc	No Criteria						
102	Aldrin		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
103	alpha-BHC		N	No detected value of B, Step 7		No	MEC<C & B is ND						
104	beta-BHC		N	No detected value of B, Step 7		No	MEC<C & B is ND						
105	gamma-BHC		N	No detected value of B, Step 7		No	MEC<C & B is ND						
106	delta-BHC		N	No Criteria	No Criteria	Uc	No Criteria						
107	Chlordane		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
108	4,4'-DDT		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
109	4,4'-DDE (linked to DDT)		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
110	4,4'-DDD		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
111	Dieldrin		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
112	alpha-Endosulfan		N	No detected value of B, Step 7		No	MEC<C & B is ND						
113	beta-Endolsulfan		N	No detected value of B, Step 7		No	MEC<C & B is ND						
114	Endosulfan Sulfate		N	No detected value of B, Step 7		No	MEC<C & B is ND						
115	Endrin		N	No detected value of B, Step 7		No	MEC<C & B is ND						
116	Endrin Aldehyde		N	No detected value of B, Step 7		No	MEC<C & B is ND						
117	Heptachlor		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
118	Heptachlor Epoxide		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
119-125	PCBs sum (2)		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
126	Toxaphene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						

		AQUATIC LIFE CALCULATIONS						LIMITS		
CTR#		ltwater / Freshwater / Basin Plan								
	Parameters	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL	Recommendation
67	Bis(2-Chloroisopropyl)Ether									No Limit
68	Bis(2-Ethylhexyl)Phthalate			1.55		3.11		5.90	**11.84**	Limit Needed
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
92	Indeno(1,2,3-cd)Pyrene									No Limit
93	Isophorone									No Limit
94	Naphthalene									No Limit
95	Nitrobenzene									No Limit
96	N-Nitrosodimethylamine									No Limit
97	N-Nitrosodi-n-Propylamine									No Limit
98	N-Nitrosodiphenylamine									No Limit
99	Phenanthrene									No Limit
100	Pyrene									No Limit
101	1,2,4-Trichlorobenzene									No Limit
102	Aldrin									No Limit
103	alpha-BHC									No Limit
104	beta-BHC									No Limit
105	gamma-BHC									No Limit
106	delta-BHC									No Limit
107	Chlordane									No Limit
108	4,4'-DDT									No Limit
109	4,4'-DDE (linked to DDT)									No Limit
110	4,4'-DDD									No Limit
111	Dieldrin									No Limit
112	alpha-Endosulfan									No Limit
113	beta-Endolsulfan									No Limit
114	Endosulfan Sulfate									No Limit
115	Endrin									No Limit
116	Endrin Aldehyde									No Limit
117	Heptachlor									No Limit
118	Heptachlor Epoxide									No Limit
119-125	PCBs sum (2)									No Limit
126	Toxaphene									No Limit

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

Attachment J
Reasonable Potential Analysis and Effluent Limitations
Inglewood Oil Field, Discharge Point 002

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)								Lowest C or WLAs	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) (ug/L)	Enter the pollutant B detected max conc (ug/L)
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL*								
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)							
1	Antimony	ug/L		1.7						4300.00			4300.00	No	No	Y	N		6
2	Arsenic	ug/L		19	340.00	150.00							150.00	No	No	Y	N		3.3
3	Beryllium	ug/L		No Criteria						Narrative			No Criteria	No Criteria	No Criteria	Y	Y	0.25	
4	Cadmium	ug/L		1	8.03	3.67				Narrative			3.67	No	No	Y	N		0.45
5a	Chromium (III)			46	2636.43	314.25				Narrative			314.25	No	No	Y	N		5.75
5b	Chromium (VI)	ug/L		0.44	16.00	11.00				Narrative			11.00	No	No	Y	N		1.25
6	Copper, Dry Weather	ug/L	0.6	21.8	22.63	14.42					35.56		35.56	No	No	Y	N		51
6	Copper, Wet Weather	ug/L	1.57072	57	22.63	14.42						13.70	13.70	Yes	Yes	Y	N		51
7	Lead, Dry Weather	ug/L	0.6	3.9	156.24	6.09				Narrative	19.65		19.65	No	No	Y	N		31.7
7	Lead, Wet Weather	ug/L	1.93122	43	156.24	6.09				Narrative		76.75	76.75	No	No	Y	N		31.7
8	Mercury	ug/L			Reserved	Reserved				0.05			0.05			Y	Y	0.1	
9	Nickel	ug/L		36	722.19	80.29				4600.00			80.29	No	No	Y	N		9.1
10	Selenium	ug/L	0.76607	5.2		5.00				Narrative			5.00	Yes	Yes	Y	Y	0.5	
11	Silver	ug/L		1	9.76								9.76	No	No	Y	Y	0.5	
12	Thallium	ug/L		1						6.30			6.30	No	No	Y	Y	0.5	
13	Zinc, Dry Weather	ug/L	0.6	308	184.55	184.55					446.55		446.55	No	No	Y	N		230
13	Zinc, Wet Weather	ug/L	1.26812	190	184.55	184.55						104.77	104.77	Yes	Yes	Y	N		230
14	Cyanide	ug/L		3	22.00	5.20				220000			5.20	No	No	Y	Y	3	
15	Asbestos	MFL		No Criteria									No Criteria	No Criteria	No Criteria	N			
16	2,3,7,8 TCDD	ug/L								1.40E-08			1.40E-08			Y	Y	0.0000016	
17	Acrolein	ug/L		5						780.00			780.00	No	No	Y	Y	2.5	
18	Acrylonitrile	ug/L								0.66			0.66			Y	Y	1	
19	Benzene	ug/L		0.5						71.00			71.00	No	No	Y	Y	0.25	
20	Bromoform	ug/L		1						360.00			360.00	No	No	Y	Y	0.25	
21	Carbon Tetrachloride	ug/L		0.5						4.40			4.40	No	No	Y	Y	0.25	
22	Chlorobenzene	ug/L		0.5						21000.00			21000.00	No	No	Y	Y	0.25	
23	Chlorodibromomethane	ug/L		0.5						34.00			34.00	No	No	Y	Y	0.25	
24	Chloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
25	2-Chloroethylvinyl ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1	
26	Chloroform	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
27	Dichlorobromomethane	ug/L		0.5						46.00			46.00	No	No	Y	Y	0.25	
28	1,1-Dichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
29	1,2-Dichloroethane	ug/L		0.5						99.00			99.00	No	No	Y	Y	0.25	
30	1,1-Dichloroethylene	ug/L		0.5						3.20			3.20	No	No	Y	Y	0.25	
31	1,2-Dichloropropane	ug/L		0.5						39.00			39.00	No	No	Y	Y	0.25	
32	1,3-Dichloropropylene	ug/L		0.5						1700.00			1700.00	No	No	Y	Y	0.25	
33	Ethylbenzene	ug/L		0.5						29000.00			29000.00	No	No	Y	Y	0.25	
34	Methyl Bromide	ug/L		0.5						4000.00			4000.00	No	No	Y	Y	0.25	
35	Methyl Chloride	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
36	Methylene Chloride	ug/L		2.5						1600.00			1600.00	No	No	Y	Y	0.88	
37	1,1,2,2-Tetrachloroethane	ug/L		0.6						11.00			11.00	No	No	Y	Y	0.25	
38	Tetrachloroethylene	ug/L		1						8.85			8.85	No	No	Y	Y	0.25	
39	Toluene	ug/L		1						200000.00			200000.00	No	No	Y	Y	0.25	
40	1,2-Trans-Dichloroethylene	ug/L		0.5						140000.00			140000.00	No	No	Y	Y	0.25	
41	1,1,1-Trichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
42	1,1,2-Trichloroethane	ug/L		0.25						42.00			42.00	No	No	Y	Y	0.25	
43	Trichloroethylene	ug/L		1						81.00			81.00	No	No	Y	Y	0.25	
44	Vinyl Chloride	ug/L		0.5						525.00			525.00	No	No	Y	Y	0.25	
45	2-Chlorophenol	ug/L		1						400.00			400.00	No	No	Y	Y	0.47	
46	2,4-Dichlorophenol	ug/L		2.1						790.00			790.00	No	No	Y	Y	0.95	
47	2,4-Dimethylphenol	ug/L		2.1						2300.00			2300.00	No	No	Y	Y	0.95	
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L								765.00			765.00			Y	Y	1.9	
49	2,4-Dinitrophenol	ug/L		5						14000.00			14000.00	No	No	Y	Y	1.9	
50	2-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.95	
51	4-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9	
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
53	Pentachlorophenol	ug/L		1.7	11.79	9.05				8.20			8.20	No	No	Y	N		1.6
54	Phenol	ug/L		5						4600000.00			4600000.00	No	No	Y	Y	0.025	
55	2,4,6-Trichlorophenol	ug/L		1						6.50			6.50	No	No	Y	Y	0.47	
56	Acenaphthene	ug/L		0.5						2700.00			2700.00	No	No	Y	Y	0.19	
57	Acenaphthylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
58	Anthracene	ug/L		5						110000.00			110000.00	No	No	Y	Y	0.19	
59	Benzidine	ug/L								0.00			0.00			Y	Y	4.7	
60	Benzo(a)Anthracene	ug/L								0.05			0.05			Y	Y	1.9	
61	Benzo(a)Pyrene	ug/L								0.05			0.05			Y	Y	0.47	
62	Benzo(b)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.95	
63	Benzo(ghi)Perylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9	

		REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS			AQUATIC L			
							Organisms only			Saltwater / Fr			
CTR#	Parameters	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic
1	Antimony		B<=C, Step 7		No	MEC<C & B<=C							
2	Arsenic		B<=C, Step 7		No	MEC<C & B<=C							
3	Beryllium	N	No Criteria	No Criteria	Uc	No Criteria							
4	Cadmium		B<=C, Step 7	No Criteria	No	MEC<C & B<=C							
5a	Chromium (III)		B<=C, Step 7		No	MEC<C & B<=C							
5b	Chromium (VI)		B<=C, Step 7		No	MEC<C & B<=C							
6	Copper, Dry Weather		Limit required, B>C & pollutant detected in effluent		Yes	B>C & pollutant detected in effluent		2.01		0.32		0.53	18.76
6	Copper, Wet Weather		Limit required, B>C & pollutant detected in effluent		Yes	MEC>=C		2.92		0.14	1.91	0.25	
7	Lead, Dry Weather		Limit required, B>C & pollutant detected in effluent		Yes	B>C & pollutant detected in effluent		2.01		0.32		0.53	10.36
7	Lead, Wet Weather		B<=C, Step 7		No	MEC<C & B<=C		3.05		0.12	9.19	0.21	
8	Mercury	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
9	Nickel		B<=C, Step 7		No	MEC<C & B<=C							
10	Selenium	N	No detected value of B, Step 7		Yes	MEC>=C		2.25		0.26		0.45	2.26
11	Silver	N	No detected value of B, Step 7		No	MEC<C & B is ND							
12	Thallium	N	No detected value of B, Step 7		No	MEC<C & B is ND							
13	Zinc, Dry Weather		B<=C, Step 7		No	MEC<C & B<=C		2.01		0.32		0.53	235.53
13	Zinc, Wet Weather		Limit required, B>C & pollutant detected in effluent		Yes	MEC>=C		2.75		0.17	17.35	0.31	32.09
14	Cyanide	N	No detected value of B, Step 7		No	MEC<C & B is ND							
15	Asbestos		No Criteria	No Criteria	Uc	No Criteria							
16	2,3,7,8 TCDD	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
17	Acrolein	N	No detected value of B, Step 7		No	MEC<C & B is ND							
18	Acrylonitrile	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
19	Benzene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
20	Bromoform	N	No detected value of B, Step 7		No	MEC<C & B is ND							
21	Carbon Tetrachloride	N	No detected value of B, Step 7		No	MEC<C & B is ND							
22	Chlorobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
23	Chlorodibromomethane	N	No detected value of B, Step 7		No	MEC<C & B is ND							
24	Chloroethane	N	No Criteria	No Criteria	Uc	No Criteria							
25	2-Chloroethylvinyl ether	N	No Criteria	No Criteria	Uc	No Criteria							
26	Chloroform	N	No Criteria	No Criteria	Uc	No Criteria							
27	Dichlorobromomethane	N	No detected value of B, Step 7		No	MEC<C & B is ND							
28	1,1-Dichloroethane	N	No Criteria	No Criteria	Uc	No Criteria							
29	1,2-Dichloroethane	N	No detected value of B, Step 7		No	MEC<C & B is ND							
30	1,1-Dichloroethylene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
31	1,2-Dichloropropane	N	No detected value of B, Step 7		No	MEC<C & B is ND							
32	1,3-Dichloropropylene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
33	Ethylbenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
34	Methyl Bromide	N	No detected value of B, Step 7		No	MEC<C & B is ND							
35	Methyl Chloride	N	No Criteria	No Criteria	Uc	No Criteria							
36	Methylene Chloride	N	No detected value of B, Step 7		No	MEC<C & B is ND							
37	1,1,2,2-Tetrachloroethane	N	No detected value of B, Step 7		No	MEC<C & B is ND							
38	Tetrachloroethylene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
39	Toluene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
40	1,2-Trans-Dichloroethylene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
41	1,1,1-Trichloroethane	N	No Criteria	No Criteria	Uc	No Criteria							
42	1,1,2-Trichloroethane	N	No detected value of B, Step 7		No	MEC<C & B is ND							
43	Trichloroethylene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
44	Vinyl Chloride	N	No detected value of B, Step 7		No	MEC<C & B is ND							
45	2-Chlorophenol	N	No detected value of B, Step 7		No	MEC<C & B is ND							
46	2,4-Dichlorophenol	N	No detected value of B, Step 7		No	MEC<C & B is ND							
47	2,4-Dimethylphenol	N	No detected value of B, Step 7		No	MEC<C & B is ND							
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	N	No detected value of B, Step 7		ud	No effluent data & B is ND							
49	2,4-Dinitrophenol	N	No detected value of B, Step 7		No	MEC<C & B is ND							
50	2-Nitrophenol	N	No Criteria	No Criteria	Uc	No Criteria							
51	4-Nitrophenol	N	No Criteria	No Criteria	Uc	No Criteria							
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	N	No Criteria	No Criteria	Uc	No Criteria							
53	Pentachlorophenol		B<=C, Step 7		No	MEC<C & B<=C							
54	Phenol	N	No detected value of B, Step 7		No	MEC<C & B is ND							
55	2,4,6-Trichlorophenol	N	No detected value of B, Step 7		No	MEC<C & B is ND							
56	Acenaphthene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
57	Acenaphthylene	N	No Criteria	No Criteria	Uc	No Criteria							
58	Anthracene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
59	Benzidine	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
60	Benzo(a)Anthracene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
61	Benzo(a)Pyrene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
62	Benzo(b)Fluoranthene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
63	Benzo(ghi)Perylene	N	No Criteria	No Criteria	Uc	No Criteria							

CTR#	Parameters	IFE CALCULATIONS eshwater / Basin Plan Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS Lowest AMEL	Lowest MDEL	Recommendation
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, Dry Weather	18.76	1.55	29.12	3.11	58.41331	29.12	**58.41**	Limit Needed
6	Copper, Wet Weather	1.91	2.46	4.69	7.18	13.7	4.69	**13.70**	Limit Needed
7	Lead, Dry Weather	10.36	1.55	16.09	3.11	32.27845	16.09	**32.28**	Limit Needed
7	Lead, Wet Weather	9.19	2.73	25.12	8.35	76.75	25.12	**76.75**	Limit Needed
8	Mercury								No Limit
9	Nickel								No Limit
10	Selenium	2.26	1.72	3.89	3.86	8.731753	3.89	**8.73**	Limit Needed
11	Silver								No Limit
12	Thallium								No Limit
13	Zinc, Dry Weather	235.53	1.55	365.64	3.11	733.5338	365.64	**733.53**	Limit Needed
13	Zinc, Wet Weather	17.35	2.20	38.13	6.04	104.77	38.13	**104.77**	Limit Needed
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
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)								Lowest C or WLAs	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) (ug/L)	Enter the pollutant B detected max conc (ug/L)
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL*								
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)							
64	Benzo(k)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.24	
65	Bis(2-Chloroethoxy)Methane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
66	Bis(2-Chloroethyl)Ether	ug/L								1.40			1.40			Y	Y	0.19	
67	Bis(2-Chloroisopropyl)Ether	ug/L		5						170000.00			170000.00	No	No	Y	Y	0.19	
68	Bis(2-Ethylhexyl)Phthalate	ug/L		5						5.90			5.90	No	No	Y	N		3.7
69	4-Bromophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.47	
70	Butylbenzyl Phthalate	ug/L		0.5						5200.00			5200.00	No	No	Y	Y	1.9	
71	2-Chloronaphthalene	ug/L		1						4300.00			4300.00	No	No	Y	Y	0.19	
72	4-Chlorophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
73	Chrysene	ug/L								0.05			0.05			Y	Y	0.19	
74	Dibenzo(a,h)Anthracene	ug/L								0.05			0.05			Y	Y	0.24	
75	1,2-Dichlorobenzene	ug/L		0.5						17000.00			17000.00	No	No	Y	Y	0.19	
76	1,3-Dichlorobenzene	ug/L		1						2600.00			2600.00	No	No	Y	Y	0.19	
77	1,4-Dichlorobenzene	ug/L		0.5						2600.00			2600.00	No	No	Y	Y	0.19	
78	3,3 Dichlorobenzidine	ug/L								0.08			0.08			Y	Y	1.9	
79	Diethyl Phthalate	ug/L		5						120000.00			120000.00	No	No	Y	Y	0.47	
80	Dimethyl Phthalate	ug/L		5						2900000.00			2900000.00	No	No	Y	Y	0.24	
81	Di-n-Butyl Phthalate	ug/L		5						12000.00			12000.00	No	No	Y	Y	0.95	
82	2,4-Dinitrotoluene	ug/L		5						9.10			9.10	No	No	Y	Y	1.9	
83	2,6-Dinitrotoluene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9	
84	Di-n-Octyl Phthalate	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	N		3
85	1,2-Diphenylhydrazine	ug/L								0.54			0.54			Y	Y	0.47	
86	Fluoranthene	ug/L		5						370.00			370.00	No	No	Y	N		0.2
87	Fluorene	ug/L		5						14000.00			14000.00	No	No	Y	Y	0.19	
88	Hexachlorobenzene	ug/L								0.00			0.00			Y	Y	0.47	
89	Hexachlorobutadiene	ug/L		1						50.00			50.00	No	No	Y	Y	0.47	
90	Hexachlorocyclopentadiene	ug/L		5						17000.00			17000.00	No	No	Y	Y	1.9	
91	Hexachloroethane	ug/L		1						8.90			8.90	No	No	Y	Y	0.47	
92	Indeno(1,2,3-cd)Pyrene	ug/L								0.05			0.05			Y	Y	0.95	
93	Isophorone	ug/L		1						600.00			600.00	No	No	Y	Y	0.47	
94	Naphthalene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.47	
95	Nitrobenzene	ug/L		5						1900.00			1900.00	No	No	Y	Y	0.47	
96	N-Nitrosodimethylamine	ug/L		5						8.10			8.10	No	No	Y	Y	0.95	
97	N-Nitrosodi-n-Propylamine	ug/L								1.40			1.40			Y	Y	0.95	
98	N-Nitrosodiphenylamine	ug/L		5						16.00			16.00	No	No	Y	Y	0.47	
99	Phenanthrene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
100	Pyrene	ug/L		5						11000.00			11000.00	No	No	Y	N		0.21
101	1,2,4-Trichlorobenzene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.47	
102	Aldrin	ug/L			3.00					0.00			0.00			Y	Y	0.0014	
103	alpha-BHC	ug/L		0.0053						0.01			0.01	No	No	Y	Y	0.0024	
104	beta-BHC	ug/L		0.011						0.05			0.05	No	No	Y	Y	0.0038	
105	gamma-BHC	ug/L		0.011	0.95					0.06			0.06	No	No	Y	Y	0.0028	
106	delta-BHC	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.0033	
107	Chlordane	ug/L			2.40	0.00				0.00			0.00			Y	Y	0.076	
108	4,4'-DDT	ug/L			1.10	0.00				0.00			0.00			Y	N		0.0074
109	4,4'-DDE (linked to DDT)	ug/L								0.00			0.00			Y	Y	0.0067	
110	4,4'-DDD	ug/L								0.00			0.00			Y	Y	0.0038	
111	Dieldrin	ug/L			0.24	0.06				0.00			0.00			Y	Y	0.0019	
112	alpha-Endosulfan	ug/L	0.6	0.0032	0.22	0.06				240.00			0.06	No	No	Y	N	0.0028	0.0093
113	beta-Endolsulfan	ug/L		0.0021	0.22	0.06				240.00			0.06	No	No	Y	Y	0.0019	
114	Endosulfan Sulfate	ug/L		0.011						240.00			240.00	No	No	Y	Y	0.0028	
115	Endrin	ug/L		0.0053	0.09	0.04				0.81			0.04	No	No	Y	Y	0.0019	
116	Endrin Aldehyde	ug/L		0.011						0.81			0.81	No	No	Y	Y	0.0019	
117	Heptachlor	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0028	
118	Heptachlor Epoxide	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0024	
119-125	PCBs sum	ug/L				0.01				0.00			0.00			Y	Y	0.25	
126	Toxaphene	ug/L			0.73	0.00				0.00			0.00			Y	Y	0.25	

* Ballona Creek Metals TMDL (Resolution No. R13-010)

		REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS			AQUATIC L			
CTR#							Organisms only			Saltwater / Fr			
	Parameters	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic
64	Benzo(k)Fluoranthene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
65	Bis(2-Chloroethoxy)Methane	N	No Criteria	No Criteria	Uc	No Criteria							
66	Bis(2-Chloroethyl)Ether	N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
67	Bis(2-Chloroisopropyl)Ether	N	No detected value of B, Step 7		No	MEC<C & B is ND							
68	Bis(2-Ethylhexyl)Phthalate		B<=C, Step 7		No	MEC<C & B<=C							
69	4-Bromophenyl Phenyl Ether	N	No Criteria	No Criteria	Uc	No Criteria							
70	Butylbenzyl Phthalate	N	No detected value of B, Step 7		No	MEC<C & B is ND							
71	2-Chloronaphthalene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
72	4-Chlorophenyl Phenyl Ether	N	No Criteria	No Criteria	Uc	No Criteria							
73	Chrysene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
74	Dibenzo(a,h)Anthracene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
75	1,2-Dichlorobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
76	1,3-Dichlorobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
77	1,4-Dichlorobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
78	3,3 Dichlorobenzidine	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
79	Diethyl Phthalate	N	No detected value of B, Step 7		No	MEC<C & B is ND							
80	Dimethyl Phthalate	N	No detected value of B, Step 7		No	MEC<C & B is ND							
81	Di-n-Butyl Phthalate	N	No detected value of B, Step 7		No	MEC<C & B is ND							
82	2,4-Dinitrotoluene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
83	2,6-Dinitrotoluene	N	No Criteria	No Criteria	Uc	No Criteria							
84	Di-n-Octyl Phthalate		No Criteria	No Criteria	Uc	No Criteria							
85	1,2-Diphenylhydrazine	N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
86	Fluoranthene		B<=C, Step 7		No	MEC<C & B<=C							
87	Fluorene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
88	Hexachlorobenzene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
89	Hexachlorobutadiene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
90	Hexachlorocyclopentadiene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
91	Hexachloroethane	N	No detected value of B, Step 7		No	MEC<C & B is ND							
92	Indeno(1,2,3-cd)Pyrene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
93	Isophorone	N	No detected value of B, Step 7		No	MEC<C & B is ND							
94	Naphthalene	N	No Criteria	No Criteria	Uc	No Criteria							
95	Nitrobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND							
96	N-Nitrosodimethylamine	N	No detected value of B, Step 7		No	MEC<C & B is ND							
97	N-Nitrosodi-n-Propylamine	N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
98	N-Nitrosodiphenylamine	N	No detected value of B, Step 7		No	MEC<C & B is ND							
99	Phenanthrene	N	No Criteria	No Criteria	Uc	No Criteria							
100	Pyrene		B<=C, Step 7		No	MEC<C & B<=C							
101	1,2,4-Trichlorobenzene	N	No Criteria	No Criteria	Uc	No Criteria							
102	Aldrin	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
103	alpha-BHC	N	No detected value of B, Step 7		No	MEC<C & B is ND							
104	beta-BHC	N	No detected value of B, Step 7		No	MEC<C & B is ND							
105	gamma-BHC	N	No detected value of B, Step 7		No	MEC<C & B is ND							
106	delta-BHC	N	No Criteria	No Criteria	Uc	No Criteria							
107	Chlordane	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
108	4,4'-DDT		B>C & eff ND, Step 7		no	ud; effluent ND, MDL>C & B>C							
109	4,4'-DDE (linked to DDT)	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
110	4,4'-DDD	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
111	Dieldrin	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
112	alpha-Endosulfan	N	B<=C, Step 7		No	MEC<C & B<=C							
113	beta-Endolsulfan	N	No detected value of B, Step 7		No	MEC<C & B is ND							
114	Endosulfan Sulfate	N	No detected value of B, Step 7		No	MEC<C & B is ND							
115	Endrin	N	No detected value of B, Step 7		No	MEC<C & B is ND							
116	Endrin Aldehyde	N	No detected value of B, Step 7		No	MEC<C & B is ND							
117	Heptachlor	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
118	Heptachlor Epoxide	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
119-125	PCBs sum	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							
126	Toxaphene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND							

Notes:
Ud = Undetermined du
Uc = Undetermined du
C = Water Quality Crit
B = Background recei

CTR#	Parameters	IFE CALCULATIONS eshwater / Basin Plan					LIMITS		Recommendation
		Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL	
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
92	Indeno(1,2,3-cd)Pyrene								No Limit
93	Isophorone								No Limit
94	Naphthalene								No Limit
95	Nitrobenzene								No Limit
96	N-Nitrosodimethylamine								No Limit
97	N-Nitrosodi-n-Propylamine								No Limit
98	N-Nitrosodiphenylamine								No Limit
99	Phenanthrene								No Limit
100	Pyrene								No Limit
101	1,2,4-Trichlorobenzene								No Limit
102	Aldrin								No Limit
103	alpha-BHC								No Limit
104	beta-BHC								No Limit
105	gamma-BHC								No Limit
106	delta-BHC								No Limit
107	Chlordane								No Limit
108	4,4'-DDT								No Limit
109	4,4'-DDE (linked to DDT)								No Limit
110	4,4'-DDD								No Limit
111	Dieldrin								No Limit
112	alpha-Endosulfan								No Limit
113	beta-Endolsulfan								No Limit
114	Endosulfan Sulfate								No Limit
115	Endrin								No Limit
116	Endrin Aldehyde								No Limit
117	Heptachlor								No Limit
118	Heptachlor Epoxide								No Limit
119-125	PCBs sum								No Limit
126	Toxaphene								No Limit

ıe to lack of data
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eria
ring water data

Attachment J
Reasonable Potential Analysis and Effluent Limitations
Inglewood Oil Field, Discharge Point 003

					CTR Water Quality Criteria (ug/L)													
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL* (Not Applicable)							
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)	Lowest C or WLAs	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) (ug/L)
1	Antimony	ug/L		1						4300.00			4300.00	No	No	Y	N	
2	Arsenic	ug/L		16	340.00	150.00							150.00	No	No	Y	N	
3	Beryllium	ug/L		No Criteria						Narrative			No Criteria	No Criteria	No Criteria	Y	Y	0.25
4	Cadmium	ug/L		1	8.03	3.67				Narrative			3.67	No	No	Y	Y	0.25
5a	Chromium (III)			27	2636.43	314.25				Narrative			314.25	No	No	Y	N	
5b	Chromium (VI)	ug/L		0.36	16.00	11.00				Narrative			11.00	No	No	Y	N	
6	Copper, All Weather	ug/L	0.60	48	22.63	14.42							14.42	Yes	Yes	Y	N	
7	Lead, All Weather	ug/L	0.60	37	156.24	6.09				Narrative			6.09	Yes	Yes	Y	N	
8	Mercury	ug/L	0.6		Reserved	Reserved				0.05			0.05			Y	Y	0.1
9	Nickel	ug/L		22	722.19	80.29				4600.00			80.29	No	No	Y	N	
10	Selenium	ug/L		2		5.00				Narrative			5.00	No	No	Y	Y	0.5
11	Silver	ug/L		1	9.76								9.76	No	No	Y	Y	0.5
12	Thallium	ug/L		1						6.30			6.30	No	No	Y	Y	0.5
13	Zinc, All Weather	ug/L	0.60	190	184.55	184.55							184.55	Yes	Yes	Y	N	
14	Cyanide	ug/L		3	22.00	5.20				220000			5.20	No	No	Y	Y	3
15	Asbestos	MFL		No Criteria									No Criteria	No Criteria	No Criteria	N		
16	2,3,7,8 TCDD	ug/L								1.40E-08			0.00			Y	Y	0.0000096
17	Acrolein	ug/L		2.5						780.00			780.00	No	No	Y	Y	2.5
18	Acrylonitrile	ug/L								0.66			0.66			Y	Y	1
19	Benzene	ug/L		0.25						71.00			71.00	No	No	Y	Y	0.25
20	Bromoform	ug/L		0.25						360.00			360.00	No	No	Y	Y	0.25
21	Carbon Tetrachloride	ug/L		0.25						4.40			4.40	No	No	Y	Y	0.25
22	Chlorobenzene	ug/L		0.25						21000.00			21000.00	No	No	Y	Y	0.25
23	Chlorodibromomethane	ug/L		1						34.00			34.00	No	No	Y	Y	0.25
24	Chloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
25	2-Chloroethylvinyl ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1
26	Chloroform	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
27	Dichlorobromomethane	ug/L		0.25						46.00			46.00	No	No	Y	Y	0.25
28	1,1-Dichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
29	1,2-Dichloroethane	ug/L		0.25						99.00			99.00	No	No	Y	Y	0.25
30	1,1-Dichloroethylene	ug/L		1						3.20			3.20	No	No	Y	Y	0.25
31	1,2-Dichloropropane	ug/L		0.25						39.00			39.00	No	No	Y	Y	0.25
32	1,3-Dichloropropylene	ug/L		1						1700.00			1700.00	No	No	Y	Y	0.25
33	Ethylbenzene	ug/L		0.25						29000.00			29000.00	No	No	Y	Y	0.25
34	Methyl Bromide	ug/L		0.5						4000.00			4000.00	No	No	Y	Y	0.25
35	Methyl Chloride	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
36	Methylene Chloride	ug/L		0.88						1600.00			1600.00	No	No	Y	Y	0.88
37	1,1,2,2-Tetrachloroethane	ug/L		0.25						11.00			11.00	No	No	Y	Y	0.25
38	Tetrachloroethylene	ug/L		0.41						8.85			8.85	No	No	Y	Y	0.25
39	Toluene	ug/L		1						200000.00			200000.00	No	No	Y	Y	0.25
40	1,2-Trans-Dichloroethylene	ug/L		0.5						140000.00			140000.00	No	No	Y	Y	0.25
41	1,1,1-Trichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
42	1,1,2-Trichloroethane	ug/L		0.25						42.00			42.00	No	No	Y	Y	0.25
43	Trichloroethylene	ug/L		1						81.00			81.00	No	No	Y	Y	0.25
44	Vinyl Chloride	ug/L		0.25						525.00			525.00	No	No	Y	Y	0.25
45	2-Chlorophenol	ug/L		0.51						400.00			400.00	No	No	Y	Y	0.48
46	2,4-Dichlorophenol	ug/L		1						790.00			790.00	No	No	Y	Y	0.95
47	2,4-Dimethylphenol	ug/L		1						2300.00			2300.00	No	No	Y	Y	0.95
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L								765.00			765.00			Y	Y	1.9
49	2,4-Dinitrophenol	ug/L		2						14000.00			14000.00	No	No	Y	Y	1.9
50	2-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.95
51	4-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
53	Pentachlorophenol	ug/L		2.1	11.79	9.05				8.20			8.20	No	No	Y	N	
54	Phenol	ug/L		0.51						4600000.00			4600000.00	No	No	Y	Y	0.48
55	2,4,6-Trichlorophenol	ug/L		0.51						6.50			6.50	No	No	Y	Y	0.48
56	Acenaphthene	ug/L		0.2						2700.00			2700.00	No	No	Y	Y	0.19
57	Acenaphthylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
58	Anthracene	ug/L		0.2						110000.00			110000.00	No	No	Y	Y	0.1
59	Benzidine	ug/L								0.00			0.00			Y	Y	4.8
60	Benzo(a)Anthracene	ug/L								0.05			0.05			Y	Y	1.9
61	Benzo(a)Pyrene	ug/L								0.05			0.05			Y	Y	0.48
62	Benzo(b)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.95
63	Benzo(ghi)Perylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9
64	Benzo(k)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.24
65	Bis(2-Chloroethoxy)Methane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19

		REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS					AC
CTR#	Parameters	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	Organisms only: AMEL hh = ECA = C hh O only	Organisms only: MDEL/AMEL multiplier	Organisms only: MDEL hh	ECA acute multiplier (p.7)	LTA acute	Salt: ECA chronic multiplier
1	Antimony	2.6		B<=C, Step 7		No	MEC<C & B<=C						
2	Arsenic	1.4		B<=C, Step 7		No	MEC<C & B<=C						
3	Beryllium		N	No Criteria	No Criteria	Uc	No Criteria						
4	Cadmium		N	No detected value of B, Step 7		No	MEC<C & B is ND						
5a	Chromium (III)	2.04		B<=C, Step 7		No	MEC<C & B<=C						
5b	Chromium (VI)	0.46		B<=C, Step 7		No	MEC<C & B<=C						
6	Copper, All Weather	20.3		Limit required, B>C & pollutant detected in effluent		Yes	MEC>=C		2.01		0.32	7.27	0.53
7	Lead, All Weather	16		Limit required, B>C & pollutant detected in effluent		Yes	MEC>=C		2.01		0.32	50.17	0.53
8	Mercury		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
9	Nickel	3.7		B<=C, Step 7		No	MEC<C & B<=C						
10	Selenium		N	No detected value of B, Step 7		No	MEC<C & B is ND						
11	Silver		N	No detected value of B, Step 7		No	MEC<C & B is ND						
12	Thallium		N	No detected value of B, Step 7		No	MEC<C & B is ND						
13	Zinc, All Weather	130		B<=C, Step 7		Yes	MEC>=C		2.01		0.32	59.26	0.53
14	Cyanide		N	No detected value of B, Step 7		No	MEC<C & B is ND						
15	Asbestos			No Criteria	No Criteria	Uc	No Criteria						
16	2,3,7,8 TCDD		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
17	Acrolein		N	No detected value of B, Step 7		No	MEC<C & B is ND						
18	Acrylonitrile		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
19	Benzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
20	Bromoform		N	No detected value of B, Step 7		No	MEC<C & B is ND						
21	Carbon Tetrachloride		N	No detected value of B, Step 7		No	MEC<C & B is ND						
22	Chlorobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
23	Chlorodibromomethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
24	Chloroethane		N	No Criteria	No Criteria	Uc	No Criteria						
25	2-Chloroethylvinyl ether		N	No Criteria	No Criteria	Uc	No Criteria						
26	Chloroform		N	No Criteria	No Criteria	Uc	No Criteria						
27	Dichlorobromomethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
28	1,1-Dichloroethane		N	No Criteria	No Criteria	Uc	No Criteria						
29	1,2-Dichloroethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
30	1,1-Dichloroethylene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
31	1,2-Dichloropropane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
32	1,3-Dichloropropylene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
33	Ethylbenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
34	Methyl Bromide		N	No detected value of B, Step 7		No	MEC<C & B is ND						
35	Methyl Chloride		N	No Criteria	No Criteria	Uc	No Criteria						
36	Methylene Chloride		N	No detected value of B, Step 7		No	MEC<C & B is ND						
37	1,1,2,2-Tetrachloroethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
38	Tetrachloroethylene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
39	Toluene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
40	1,2-Trans-Dichloroethylene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
41	1,1,1-Trichloroethane		N	No Criteria	No Criteria	Uc	No Criteria						
42	1,1,2-Trichloroethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
43	Trichloroethylene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
44	Vinyl Chloride		N	No detected value of B, Step 7		No	MEC<C & B is ND						
45	2-Chlorophenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
46	2,4-Dichlorophenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
47	2,4-Dimethylphenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)		N	No detected value of B, Step 7		ud	No effluent data & B is ND						
49	2,4-Dinitrophenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
50	2-Nitrophenol		N	No Criteria	No Criteria	Uc	No Criteria						
51	4-Nitrophenol		N	No Criteria	No Criteria	Uc	No Criteria						
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)		N	No Criteria	No Criteria	Uc	No Criteria						
53	Pentachlorophenol	1.6		B<=C, Step 7		No	MEC<C & B<=C						
54	Phenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
55	2,4,6-Trichlorophenol		N	No detected value of B, Step 7		No	MEC<C & B is ND						
56	Acenaphthene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
57	Acenaphthylene		N	No Criteria	No Criteria	Uc	No Criteria						
58	Anthracene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
59	Benzidine		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
60	Benzo(a)Anthracene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
61	Benzo(a)Pyrene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
62	Benzo(b)Fluoranthene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND						
63	Benzo(ghi)Perylene		N	No Criteria	No Criteria	Uc	No Criteria						
64	Benzo(k)Fluoranthene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
65	Bis(2-Chloroethoxy)Methane		N	No Criteria	No Criteria	Uc	No Criteria						

CTR#	Parameters	QUATIC LIFE CALCULATIONS water / Freshwater / Basin Plan LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS Lowest AMEL	Lowest MDEL	Recommendation
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, All Weather	7.61	7.27	1.55	11.28	3.11	22.63	11.28	**22.63**	Limit Needed
7	Lead, All Weather	3.21	3.21	1.55	4.99	3.11	10.00	4.99	**10.00**	Limit Needed
8	Mercury									No Limit
9	Nickel									No Limit
10	Selenium									No Limit
11	Silver									No Limit
12	Thallium									No Limit
13	Zinc, All Weather	97.34	59.26	1.55	91.99	3.11	184.55	91.99	**184.55**	Limit Needed
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
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)						Ballona Creek Metals TMDL* (Not Applicable)		Lowest C or WLAs	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) (ug/L)
					Freshwater		Saltwater		Human Health for consumption of:									
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)						
66	Bis(2-Chloroethyl)Ether	ug/L		0.2						1.40			1.40	No	No	Y	Y	0.19
67	Bis(2-Chloroisopropyl)Ether	ug/L		0.2						170000.00			170000.00	No	No	Y	Y	0.19
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	2.6						5.90			5.90	No	No	Y	N	
69	4-Bromophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.48
70	Butylbenzyl Phthalate	ug/L								5200.00			5200.00			Y	Y	1.9
71	2-Chloronaphthalene	ug/L		0.2						4300.00			4300.00	No	No	Y	Y	0.19
72	4-Chlorophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
73	Chrysene	ug/L								0.05			0.05			Y	Y	0.19
74	Dibenzo(a,h)Anthracene	ug/L								0.05			0.05			Y	Y	0.24
75	1,2-Dichlorobenzene	ug/L		0.2						17000.00			17000.00	No	No	Y	Y	0.19
76	1,3-Dichlorobenzene	ug/L		0.2						2600.00			2600.00	No	No	Y	Y	0.19
77	1,4-Dichlorobenzene	ug/L		0.2						2600.00			2600.00	No	No	Y	Y	0.19
78	3,3 Dichlorobenzidine	ug/L								0.08			0.08			Y	Y	1.9
79	Diethyl Phthalate	ug/L		0.51						120000.00			120000.00	No	No	Y	N	
80	Dimethyl Phthalate	ug/L		0.26						2900000.00			2900000.00	No	No	Y	Y	0.24
81	Di-n-Butyl Phthalate	ug/L		1						12000.00			12000.00	No	No	Y	Y	0.95
82	2,4-Dinitrotoluene	ug/L		2						9.10			9.10	No	No	Y	Y	1.9
83	2,6-Dinitrotoluene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9
84	Di-n-Octyl Phthalate	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	N	
85	1,2-Diphenylhydrazine	ug/L								0.54			0.54			Y	Y	0.48
86	Fluoranthene	ug/L		0.2						370.00			370.00	No	No	Y	Y	0.19
87	Fluorene	ug/L		0.2						14000.00			14000.00	No	No	Y	Y	0.19
88	Hexachlorobenzene	ug/L								0.00			0.00			Y	Y	0.48
89	Hexachlorobutadiene	ug/L		0.51						50.00			50.00	No	No	Y	Y	0.48
90	Hexachlorocyclopentadiene	ug/L		2						17000.00			17000.00	No	No	Y	Y	1.9
91	Hexachloroethane	ug/L		0.51						8.90			8.90	No	No	Y	Y	0.48
92	Indeno(1,2,3-cd)Pyrene	ug/L								0.05			0.05			Y	Y	0.95
93	Isophorone	ug/L		0.51						600.00			600.00	No	No	Y	Y	0.48
94	Naphthalene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.48
95	Nitrobenzene	ug/L		0.51						1900.00			1900.00	No	No	Y	Y	0.48
96	N-Nitrosodimethylamine	ug/L		1						8.10			8.10	No	No	Y	Y	0.95
97	N-Nitrosodi-n-Propylamine	ug/L								1.40			1.40			Y	Y	0.95
98	N-Nitrosodiphenylamine	ug/L		0.51						16.00			16.00	No	No	Y	Y	0.48
99	Phenanthrene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
100	Pyrene	ug/L		0.2						11000.00			11000.00	No	No	Y	Y	0.19
101	1,2,4-Trichlorobenzene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.48
102	Aldrin	ug/L			3.00					0.00			0.00			Y	Y	0.0014
103	alpha-BHC	ug/L		0.0024						0.01			0.01	No	No	Y	Y	0.0024
104	beta-BHC	ug/L		0.0038						0.05			0.05	No	No	Y	Y	0.0038
105	gamma-BHC	ug/L		0.0029	0.95					0.06			0.06	No	No	Y	Y	0.0029
106	delta-BHC	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.0033
107	Chlordane	ug/L			2.40	0.00				0.00			0.00			Y	Y	0.076
108	4,4'-DDT	ug/L			1.10	0.00				0.00			0.00			Y	Y	0.0038
109	4,4'-DDE (linked to DDT)	ug/L								0.00			0.00			Y	Y	0.0029
110	4,4'-DDD	ug/L								0.00			0.00			Y	Y	0.0038
111	Dieldrin	ug/L			0.24	0.06				0.00			0.00			Y	Y	0.0019
112	alpha-Endosulfan	ug/L	0.6	0.0029	0.22	0.06				240.00			0.06	No	No	Y	Y	0.0029
113	beta-Endolsulfan	ug/L		0.0019	0.22	0.06				240.00			0.06	No	No	Y	Y	0.0019
114	Endosulfan Sulfate	ug/L		0.0095						240.00			240.00	No	No	Y	Y	0.0029
115	Endrin	ug/L		0.0019	0.09	0.04				0.81			0.04	No	No	Y	Y	0.0019
116	Endrin Aldehyde	ug/L		0.0019						0.81			0.81	No	No	Y	Y	0.0019
117	Heptachlor	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0029
118	Heptachlor Epoxide	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0024
119-125	PCBs sum (2)	ug/L				0.01				0.00			0.00			Y	Y	0.25
126	Toxaphene	ug/L			0.73	0.00				0.00			0.00			Y	Y	0.25

		REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS					AC
								Organisms only					Salt
CTR#	Parameters	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier
66	Bis(2-Chloroethyl)Ether		N	No detected value of B, Step 7		No	MEC<C & B is ND						
67	Bis(2-Chloroisopropyl)Ether		N	No detected value of B, Step 7		No	MEC<C & B is ND						
68	Bis(2-Ethylhexyl)Phthalate	5.5		B<=C, Step 7		No	MEC<C & B<=C						
69	4-Bromophenyl Phenyl Ether		N	No Criteria	No Criteria	Uc	No Criteria						
70	Butylbenzyl Phthalate		N	No detected value of B, Step 7		ud	No effluent data & B is ND						
71	2-Chloronaphthalene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
72	4-Chlorophenyl Phenyl Ether		N	No Criteria	No Criteria	Uc	No Criteria						
73	Chrysene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
74	Dibenzo(a,h)Anthracene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
75	1,2-Dichlorobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
76	1,3-Dichlorobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
77	1,4-Dichlorobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
78	3,3 Dichlorobenzidine		Y	No detected value of B, Step 7		ud	No effluent data & B is ND						
79	Diethyl Phthalate	0.53		B<=C, Step 7		No	MEC<C & B<=C						
80	Dimethyl Phthalate		N	No detected value of B, Step 7		No	MEC<C & B is ND						
81	Di-n-Butyl Phthalate		N	No detected value of B, Step 7		No	MEC<C & B is ND						
82	2,4-Dinitrotoluene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
83	2,6-Dinitrotoluene		N	No Criteria	No Criteria	Uc	No Criteria						
84	Di-n-Octyl Phthalate	4		No Criteria	No Criteria	Uc	No Criteria						
85	1,2-Diphenylhydrazine		N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
86	Fluoranthene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
87	Fluorene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
88	Hexachlorobenzene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
89	Hexachlorobutadiene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
90	Hexachlorocyclopentadiene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
91	Hexachloroethane		N	No detected value of B, Step 7		No	MEC<C & B is ND						
92	Indeno(1,2,3-cd)Pyrene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
93	Isophorone		N	No detected value of B, Step 7		No	MEC<C & B is ND						
94	Naphthalene		N	No Criteria	No Criteria	Uc	No Criteria						
95	Nitrobenzene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
96	N-Nitrosodimethylamine		N	No detected value of B, Step 7		No	MEC<C & B is ND						
97	N-Nitrosodi-n-Propylamine		N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
98	N-Nitrosodiphenylamine		N	No detected value of B, Step 7		No	MEC<C & B is ND						
99	Phenanthrene		N	No Criteria	No Criteria	Uc	No Criteria						
100	Pyrene		N	No detected value of B, Step 7		No	MEC<C & B is ND						
101	1,2,4-Trichlorobenzene		N	No Criteria	No Criteria	Uc	No Criteria						
102	Aldrin		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
103	alpha-BHC		N	No detected value of B, Step 7		No	MEC<C & B is ND						
104	beta-BHC		N	No detected value of B, Step 7		No	MEC<C & B is ND						
105	gamma-BHC		N	No detected value of B, Step 7		No	MEC<C & B is ND						
106	delta-BHC		N	No Criteria	No Criteria	Uc	No Criteria						
107	Chlordane		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
108	4,4'-DDT		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
109	4,4'-DDE (linked to DDT)		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
110	4,4'-DDD		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
111	Dieldrin		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
112	alpha-Endosulfan		N	No detected value of B, Step 7		No	MEC<C & B is ND						
113	beta-Endolsulfan		N	No detected value of B, Step 7		No	MEC<C & B is ND						
114	Endosulfan Sulfate		N	No detected value of B, Step 7		No	MEC<C & B is ND						
115	Endrin		N	No detected value of B, Step 7		No	MEC<C & B is ND						
116	Endrin Aldehyde		N	No detected value of B, Step 7		No	MEC<C & B is ND						
117	Heptachlor		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
118	Heptachlor Epoxide		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
119-125	PCBs sum (2)		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						
126	Toxaphene		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND						

CTR#	Parameters	QUATIC LIFE CALCULATIONS water / Freshwater / Basin Plan LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS Lowest AMEL	Lowest MDEL	Recommendation
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
92	Indeno(1,2,3-cd)Pyrene									No Limit
93	Isophorone									No Limit
94	Naphthalene									No Limit
95	Nitrobenzene									No Limit
96	N-Nitrosodimethylamine									No Limit
97	N-Nitrosodi-n-Propylamine									No Limit
98	N-Nitrosodiphenylamine									No Limit
99	Phenanthrene									No Limit
100	Pyrene									No Limit
101	1,2,4-Trichlorobenzene									No Limit
102	Aldrin									No Limit
103	alpha-BHC									No Limit
104	beta-BHC									No Limit
105	gamma-BHC									No Limit
106	delta-BHC									No Limit
107	Chlordane									No Limit
108	4,4'-DDT									No Limit
109	4,4'-DDE (linked to DDT)									No Limit
110	4,4'-DDD									No Limit
111	Dieldrin									No Limit
112	alpha-Endosulfan									No Limit
113	beta-Endolsulfan									No Limit
114	Endosulfan Sulfate									No Limit
115	Endrin									No Limit
116	Endrin Aldehyde									No Limit
117	Heptachlor									No Limit
118	Heptachlor Epoxide									No Limit
119-125	PCBs sum (2)									No Limit
126	Toxaphene									No Limit

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

Attachment J
Reasonable Potential Analysis and Effluent Limitations
Inglewood Oil Field, Discharge Point 004

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)								Lowest C or WLAs	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL*					
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)				
1	Antimony	ug/L		1.1						4300.00			4300.00	No	No	Y
2	Arsenic	ug/L		12.2	340.00	150.00							150.00	No	No	Y
3	Beryllium	ug/L		No Criteria						Narrative			No Criteria	No Criteria	No Criteria	Y
4	Cadmium	ug/L		1	8.03	3.67				Narrative			3.67	No	No	Y
5a	Chromium (III)			2	2636.43	314.25				Narrative			314.25	No	No	Y
5b	Chromium (VI)	ug/L		0.06	16.00	11.00				Narrative			11.00	No	No	Y
6	Copper, Dry Weather	ug/L	0.6	3.8	22.63	14.42					35.56		35.56	No	No	Y
6	Copper, Wet Weather	ug/L	0.6		22.63	14.42						13.70	13.70			Y
7	Lead, Dry Weather	ug/L	0.6	1	156.24	6.09				Narrative	19.65		19.65	No	No	Y
7	Lead, Wet Weather	ug/L	0.6		156.24	6.09				Narrative		76.75	76.75			Y
8	Mercury	ug/L			Reserved	Reserved				0.05			0.05			Y
9	Nickel	ug/L		1	722.19	80.29				4600.00			80.29	No	No	Y
10	Selenium	ug/L		2		5.00				Narrative			5.00	No	No	Y
11	Silver	ug/L		1	9.76								9.76	No	No	Y
12	Thallium	ug/L		1						6.30			6.30	No	No	Y
13	Zinc, Dry Weather	ug/L	0.6	15.3	184.55	184.55					446.55		446.55	No	No	Y
13	Zinc, Wet Weather	ug/L	0.6		184.55	184.55						104.77	104.77			Y
14	Cyanide	ug/L			22.00	5.20				220000			5.20			Y
15	Asbestos	MFL		No Criteria									No Criteria	No Criteria	No Criteria	N
16	2,3,7,8 TCDD	ug/L								0.00			0.00			Y
17	Acrolein	ug/L		10						780.00			780.00	No	No	Y
18	Acrylonitrile	ug/L								0.66			0.66			Y
19	Benzene	ug/L		1						71.00			71.00	No	No	Y
20	Bromoform	ug/L		1						360.00			360.00	No	No	Y
21	Carbon Tetrachloride	ug/L		0.5						4.40			4.40	No	No	Y
22	Chlorobenzene	ug/L		1						21000.00			21000.00	No	No	Y
23	Chlorodibromomethane	ug/L		1						34.00			34.00	No	No	Y
24	Chloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
25	2-Chloroethylvinyl ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
26	Chloroform	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
27	Dichlorobromomethane	ug/L		0.5						46.00			46.00	No	No	Y
28	1,1-Dichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
29	1,2-Dichloroethane	ug/L		0.5						99.00			99.00	No	No	Y
30	1,1-Dichloroethylene	ug/L		1						3.20			3.20	No	No	Y
31	1,2-Dichloropropane	ug/L		1						39.00			39.00	No	No	Y
32	1,3-Dichloropropylene	ug/L								1700.00			1700.00			Y
33	Ethylbenzene	ug/L		1						29000.00			29000.00	No	No	Y
34	Methyl Bromide	ug/L		0.5						4000.00			4000.00	No	No	Y
35	Methyl Chloride	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
36	Methylene Chloride	ug/L		2.5						1600.00			1600.00	No	No	Y
37	1,1,2,2-Tetrachloroethane	ug/L		1						11.00			11.00	No	No	Y
38	Tetrachloroethylene	ug/L		1						8.85			8.85	No	No	Y
39	Toluene	ug/L		1						200000.00			200000.00	No	No	Y
40	1,2-Trans-Dichloroethylene	ug/L		0.5						140000.00			140000.00	No	No	Y
41	1,1,1-Trichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
42	1,1,2-Trichloroethane	ug/L		1						42.00			42.00	No	No	Y
43	Trichloroethylene	ug/L		1						81.00			81.00	No	No	Y
44	Vinyl Chloride	ug/L		0.5						525.00			525.00	No	No	Y
45	2-Chlorophenol	ug/L		5						400.00			400.00	No	No	Y
46	2,4-Dichlorophenol	ug/L		5						790.00			790.00	No	No	Y
47	2,4-Dimethylphenol	ug/L		2						2300.00			2300.00	No	No	Y
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L								765.00			765.00			Y
49	2,4-Dinitrophenol	ug/L		5						14000.00			14000.00	No	No	Y
50	2-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
51	4-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
53	Pentachlorophenol	ug/L		1	11.79	9.05				8.20			8.20	No	No	Y
54	Phenol	ug/L		5						4600000.00			4600000.00	No	No	Y
55	2,4,6-Trichlorophenol	ug/L		5						6.50			6.50	No	No	Y
56	Acenaphthene	ug/L		1						2700.00			2700.00	No	No	Y
57	Acenaphthylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
58	Anthracene	ug/L		5						110000.00			110000.00	No	No	Y
59	Benzidine	ug/L								0.00			0.00			Y
60	Benzo(a)Anthracene	ug/L								0.05			0.05			Y
61	Benzo(a)Pyrene	ug/L								0.05			0.05			Y
62	Benzo(b)Fluoranthene	ug/L								0.05			0.05			Y
63	Benzo(ghi)Perylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y

		REASONABLE POTENTIAL ANALYSIS (RPA)								HUMAN HEALTH CALCULATIONS		
CTR#	Parameters	Are all B data points non-detects (Y/N)?	If all data 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	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	Organisms only		
										AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	N		6		B<=C, Step 7		No	MEC<C & B<=C			
2	Arsenic	N		3.3		B<=C, Step 7		No	MEC<C & B<=C			
3	Beryllium	Y	0.25		N	No Criteria	No Criteria	Uc	No Criteria			
4	Cadmium	N		0.45		B<=C, Step 7	No Criteria	No	MEC<C & B<=C			
5a	Chromium (III)	N		5.75		B<=C, Step 7		No	MEC<C & B<=C			
5b	Chromium (VI)	N		1.25		B<=C, Step 7		No	MEC<C & B<=C			
6	Copper, Dry Weather	N		51		Limit required, B>C & pollutant detected in effluent		Yes	B>C & pollutant detected in effluent		2.01	
6	Copper, Wet Weather	N		51		B>C & no eff data		ud	No effluent data & B>C		2.01	
7	Lead, Dry Weather	N		31.7		B>C & eff ND, Step 7		No	ud; B>C & effluent ND		2.01	
7	Lead, Wet Weather	N		31.7		B<=C, Step 7		Ud	No effluent data & B<=C		2.01	
8	Mercury	Y	0.1		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
9	Nickel	N		9.1		B<=C, Step 7		No	MEC<C & B<=C			
10	Selenium	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND			
11	Silver	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND			
12	Thallium	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND			
13	Zinc, Dry Weather	N		230		B<=C, Step 7		No	MEC<C & B<=C		2.01	
13	Zinc, Wet Weather	N		230		B>C & no eff data		ud	No effluent data & B>C		2.01	
14	Cyanide	Y	3		N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
15	Asbestos					No Criteria	No Criteria	Uc	No Criteria			
16	2,3,7,8 TCDD	Y	0.0000016		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
17	Acrolein	Y	2.5		N	No detected value of B, Step 7		No	MEC<C & B is ND			
18	Acrylonitrile	Y	1		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
19	Benzene	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
20	Bromoform	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
21	Carbon Tetrachloride	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
22	Chlorobenzene	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
23	Chlorodibromomethane	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
24	Chloroethane	Y	0.25		N	No Criteria	No Criteria	Uc	No Criteria			
25	2-Chloroethylvinyl ether	Y	1		N	No Criteria	No Criteria	Uc	No Criteria			
26	Chloroform	Y	0.25		N	No Criteria	No Criteria	Uc	No Criteria			
27	Dichlorobromomethane	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
28	1,1-Dichloroethane	Y	0.25		N	No Criteria	No Criteria	Uc	No Criteria			
29	1,2-Dichloroethane	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
30	1,1-Dichloroethylene	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
31	1,2-Dichloropropane	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
32	1,3-Dichloropropylene	Y	0.25		N	No detected value of B, Step 7		ud	No effluent data & B is ND			
33	Ethylbenzene	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
34	Methyl Bromide	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
35	Methyl Chloride	Y	0.25		N	No Criteria	No Criteria	Uc	No Criteria			
36	Methylene Chloride	Y	0.88		N	No detected value of B, Step 7		No	MEC<C & B is ND			
37	1,1,2,2-Tetrachloroethane	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
38	Tetrachloroethylene	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
39	Toluene	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
40	1,2-Trans-Dichloroethylene	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
41	1,1,1-Trichloroethane	Y	0.25		N	No Criteria	No Criteria	Uc	No Criteria			
42	1,1,2-Trichloroethane	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
43	Trichloroethylene	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
44	Vinyl Chloride	Y	0.25		N	No detected value of B, Step 7		No	MEC<C & B is ND			
45	2-Chlorophenol	Y	0.47		N	No detected value of B, Step 7		No	MEC<C & B is ND			
46	2,4-Dichlorophenol	Y	0.95		N	No detected value of B, Step 7		No	MEC<C & B is ND			
47	2,4-Dimethylphenol	Y	0.95		N	No detected value of B, Step 7		No	MEC<C & B is ND			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	Y	1.9		N	No detected value of B, Step 7		ud	No effluent data & B is ND			
49	2,4-Dinitrophenol	Y	1.9		N	No detected value of B, Step 7		No	MEC<C & B is ND			
50	2-Nitrophenol	Y	0.95		N	No Criteria	No Criteria	Uc	No Criteria			
51	4-Nitrophenol	Y	1.9		N	No Criteria	No Criteria	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	Y	0.19		N	No Criteria	No Criteria	Uc	No Criteria			
53	Pentachlorophenol	N		1.6		B<=C, Step 7		No	MEC<C & B<=C			
54	Phenol	Y	0.025		N	No detected value of B, Step 7		No	MEC<C & B is ND			
55	2,4,6-Trichlorophenol	Y	0.47		N	No detected value of B, Step 7		No	MEC<C & B is ND			
56	Acenaphthene	Y	0.19		N	No detected value of B, Step 7		No	MEC<C & B is ND			
57	Acenaphthylene	Y	0.19		N	No Criteria	No Criteria	Uc	No Criteria			
58	Anthracene	Y	0.19		N	No detected value of B, Step 7		No	MEC<C & B is ND			
59	Benzidine	Y	4.7		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
60	Benzo(a)Anthracene	Y	1.9		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
61	Benzo(a)Pyrene	Y	0.47		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
62	Benzo(b)Fluoranthene	Y	0.95		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
63	Benzo(ghi)Perylene	Y	1.9		N	No Criteria	No Criteria	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS — Saltwater / Freshwater / Basin Plan: ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	Lowest MDEL	Recommendation
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, Dry Weather	0.32		0.53	18.76	18.76	1.55	29.12	3.11	58.41331	29.12	**58.41**	Limit Needed
6	Copper, Wet Weather	0.32	4.40	0.53		4.40	1.55	6.83	3.11	13.7	6.83	**13.70**	Limit Needed
7	Lead, Dry Weather	0.32		0.53	10.36	10.36	1.55	16.09	3.11	32.27845	16.09	**32.28**	Limit Needed
7	Lead, Wet Weather	0.32	24.64	0.53		24.64	1.55	38.26	3.11	76.75	38.26	**76.75**	Limit Needed
8	Mercury												No Limit
9	Nickel												No Limit
10	Selenium												No Limit
11	Silver												No Limit
12	Thallium												No Limit
13	Zinc, Dry Weather	0.32		0.53	235.53	235.53	1.55	365.64	3.11	733.5338	365.64	**733.53**	Limit Needed
13	Zinc, Wet Weather	0.32	33.64	0.53	55.26	33.64	1.55	52.22	3.11	104.77	52.22	**104.77**	Limit Needed
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
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)								Lowest C or WLAs	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL*					
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)				
64	Benzo(k)Fluoranthene	ug/L								0.05			0.05			Y
65	Bis(2-Chloroethoxy)Methane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
66	Bis(2-Chloroethyl)Ether	ug/L								1.40			1.40			Y
67	Bis(2-Chloroisopropyl)Ether	ug/L		5						170000.00			170000.00	No	No	Y
68	Bis(2-Ethylhexyl)Phthalate	ug/L		5						5.90			5.90	No	No	Y
69	4-Bromophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
70	Butylbenzyl Phthalate	ug/L		5						5200.00			5200.00	No	No	Y
71	2-Chloronaphthalene	ug/L		5						4300.00			4300.00	No	No	Y
72	4-Chlorophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
73	Chrysene	ug/L								0.05			0.05			Y
74	Dibenzo(a,h)Anthracene	ug/L								0.05			0.05			Y
75	1,2-Dichlorobenzene	ug/L		1						17000.00			17000.00	No	No	Y
76	1,3-Dichlorobenzene	ug/L		1						2600.00			2600.00	No	No	Y
77	1,4-Dichlorobenzene	ug/L		1						2600.00			2600.00	No	No	Y
78	3,3 Dichlorobenzidine	ug/L								0.08			0.08			Y
79	Diethyl Phthalate	ug/L		5						120000.00			120000.00	No	No	Y
80	Dimethyl Phthalate	ug/L		5						2900000.00			2900000.00	No	No	Y
81	Di-n-Butyl Phthalate	ug/L		5						12000.00			12000.00	No	No	Y
82	2,4-Dinitrotoluene	ug/L		5						9.10			9.10	No	No	Y
83	2,6-Dinitrotoluene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
84	Di-n-Octyl Phthalate	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
85	1,2-Diphenylhydrazine	ug/L								0.54			0.54			Y
86	Fluoranthene	ug/L		5						370.00			370.00	No	No	Y
87	Fluorene	ug/L		5						14000.00			14000.00	No	No	Y
88	Hexachlorobenzene	ug/L								0.00			0.00			Y
89	Hexachlorobutadiene	ug/L		1						50.00			50.00	No	No	Y
90	Hexachlorocyclopentadiene	ug/L		5						17000.00			17000.00	No	No	Y
91	Hexachloroethane	ug/L		1						8.90			8.90	No	No	Y
92	Indeno(1,2,3-cd)Pyrene	ug/L								0.05			0.05			Y
93	Isophorone	ug/L		1						600.00			600.00	No	No	Y
94	Naphthalene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
95	Nitrobenzene	ug/L		5						1900.00			1900.00	No	No	Y
96	N-Nitrosodimethylamine	ug/L		5						8.10			8.10	No	No	Y
97	N-Nitrosodi-n-Propylamine	ug/L								1.40			1.40			Y
98	N-Nitrosodiphenylamine	ug/L		5						16.00			16.00	No	No	Y
99	Phenanthrene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
100	Pyrene	ug/L		5						11000.00			11000.00	No	No	Y
101	1,2,4-Trichlorobenzene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
102	Aldrin	ug/L			3.00					0.00			0.00			Y
103	alpha-BHC	ug/L								0.01			0.01			Y
104	beta-BHC	ug/L		0.02						0.05			0.05	No	No	Y
105	gamma-BHC	ug/L		0.02	0.95					0.06			0.06	No	No	Y
106	delta-BHC	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y
107	Chlordane	ug/L			2.40	0.00				0.00			0.00			Y
108	4,4'-DDT	ug/L			1.10	0.00				0.00			0.00			Y
109	4,4'-DDE (linked to DDT)	ug/L								0.00			0.00			Y
110	4,4'-DDD	ug/L								0.00			0.00			Y
111	Dieldrin	ug/L			0.24	0.06				0.00			0.00			Y
112	alpha-Endosulfan	ug/L	0.6		0.22	0.06				240.00			0.06			Y
113	beta-Endolsulfan	ug/L			0.22	0.06				240.00			0.06			Y
114	Endosulfan Sulfate	ug/L		0.02						240.00			240.00	No	No	Y
115	Endrin	ug/L		0.01	0.09	0.04				0.81			0.04	No	No	Y
116	Endrin Aldehyde	ug/L		0.02						0.81			0.81	No	No	Y
117	Heptachlor	ug/L			0.52	0.00				0.00			0.00			Y
118	Heptachlor Epoxide	ug/L			0.52	0.00				0.00			0.00			Y
119-125	PCBs sum	ug/L				0.01				0.00			0.00			Y
126	Toxaphene	ug/L			0.73	0.00				0.00			0.00			Y

* Ballona Creek Metals TMDL (Resolution No. R13-010)

		REASONABLE POTENTIAL ANALYSIS (RPA)								HUMAN HEALTH CALCULATIONS		
CTR#	Parameters	Are all B data points non-detects (Y/N)?	If all data 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	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	Organisms only		
										AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	Y	0.24		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
65	Bis(2-Chloroethoxy)Methane	Y	0.19		N	No Criteria	No Criteria	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	Y	0.19		N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
67	Bis(2-Chloroisopropyl)Ether	Y	0.19		N	No detected value of B, Step 7		No	MEC<C & B is ND			
68	Bis(2-Ethylhexyl)Phthalate	N		3.7		B<=C, Step 7		No	MEC<C & B<=C			
69	4-Bromophenyl Phenyl Ether	Y	0.47		N	No Criteria	No Criteria	Uc	No Criteria			
70	Butylbenzyl Phthalate	Y	1.9		N	No detected value of B, Step 7		No	MEC<C & B is ND			
71	2-Chloronaphthalene	Y	0.19		N	No detected value of B, Step 7		No	MEC<C & B is ND			
72	4-Chlorophenyl Phenyl Ether	Y	0.19		N	No Criteria	No Criteria	Uc	No Criteria			
73	Chrysene	Y	0.19		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
74	Dibenzo(a,h)Anthracene	Y	0.24		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
75	1,2-Dichlorobenzene	Y	0.19		N	No detected value of B, Step 7		No	MEC<C & B is ND			
76	1,3-Dichlorobenzene	Y	0.19		N	No detected value of B, Step 7		No	MEC<C & B is ND			
77	1,4-Dichlorobenzene	Y	0.19		N	No detected value of B, Step 7		No	MEC<C & B is ND			
78	3,3 Dichlorobenzidine	Y	1.9		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
79	Diethyl Phthalate	Y	0.47		N	No detected value of B, Step 7		No	MEC<C & B is ND			
80	Dimethyl Phthalate	Y	0.24		N	No detected value of B, Step 7		No	MEC<C & B is ND			
81	Di-n-Butyl Phthalate	Y	0.95		N	No detected value of B, Step 7		No	MEC<C & B is ND			
82	2,4-Dinitrotoluene	Y	1.9		N	No detected value of B, Step 7		No	MEC<C & B is ND			
83	2,6-Dinitrotoluene	Y	1.9		N	No Criteria	No Criteria	Uc	No Criteria			
84	Di-n-Octyl Phthalate	N		3		No Criteria	No Criteria	Uc	No Criteria			
85	1,2-Diphenylhydrazine	Y	0.47		N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
86	Fluoranthene	N		0.2		B<=C, Step 7		No	MEC<C & B<=C			
87	Fluorene	Y	0.19		N	No detected value of B, Step 7		No	MEC<C & B is ND			
88	Hexachlorobenzene	Y	0.47		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
89	Hexachlorobutadiene	Y	0.47		N	No detected value of B, Step 7		No	MEC<C & B is ND			
90	Hexachlorocyclopentadiene	Y	1.9		N	No detected value of B, Step 7		No	MEC<C & B is ND			
91	Hexachloroethane	Y	0.47		N	No detected value of B, Step 7		No	MEC<C & B is ND			
92	Indeno(1,2,3-cd)Pyrene	Y	0.95		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
93	Isophorone	Y	0.47		N	No detected value of B, Step 7		No	MEC<C & B is ND			
94	Naphthalene	Y	0.47		N	No Criteria	No Criteria	Uc	No Criteria			
95	Nitrobenzene	Y	0.47		N	No detected value of B, Step 7		No	MEC<C & B is ND			
96	N-Nitrosodimethylamine	Y	0.95		N	No detected value of B, Step 7		No	MEC<C & B is ND			
97	N-Nitrosodi-n-Propylamine	Y	0.95		N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
98	N-Nitrosodiphenylamine	Y	0.47		N	No detected value of B, Step 7		No	MEC<C & B is ND			
99	Phenanthrene	Y	0.19		N	No Criteria	No Criteria	Uc	No Criteria			
100	Pyrene	N		0.21		B<=C, Step 7		No	MEC<C & B<=C			
101	1,2,4-Trichlorobenzene	Y	0.47		N	No Criteria	No Criteria	Uc	No Criteria			
102	Aldrin	Y	0.0014		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
103	alpha-BHC	Y	0.0024		N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
104	beta-BHC	Y	0.0038		N	No detected value of B, Step 7		No	MEC<C & B is ND			
105	gamma-BHC	Y	0.0028		N	No detected value of B, Step 7		No	MEC<C & B is ND			
106	delta-BHC	Y	0.0033		N	No Criteria	No Criteria	Uc	No Criteria			
107	Chlordane	Y	0.076		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
108	4,4'-DDT	N		0.0074		B>C & eff ND, Step 7		no	ud; effluent ND, MDL>C & B>C			
109	4,4'-DDE (linked to DDT)	Y	0.0067		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
110	4,4'-DDD	Y	0.0038		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
111	Dieldrin	Y	0.0019		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
112	alpha-Endosulfan	N	0.0028	0.0093	N	B<=C, Step 7		Ud	No effluent data & B<=C			
113	beta-Endolsulfan	Y	0.0019		N	No detected value of B, Step 7		ud	No effluent data & B is ND			
114	Endosulfan Sulfate	Y	0.0028		N	No detected value of B, Step 7		No	MEC<C & B is ND			
115	Endrin	Y	0.0019		N	No detected value of B, Step 7		No	MEC<C & B is ND			
116	Endrin Aldehyde	Y	0.0019		N	No detected value of B, Step 7		No	MEC<C & B is ND			
117	Heptachlor	Y	0.0028		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
118	Heptachlor Epoxide	Y	0.0024		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
119-125	PCBs sum	Y	0.25		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			
126	Toxaphene	Y	0.25		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS – Saltwater / Freshwater / Basin Plan: ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	Lowest MDEL	Recommendation
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
92	Indeno(1,2,3-cd)Pyrene												No Limit
93	Isophorone												No Limit
94	Naphthalene												No Limit
95	Nitrobenzene												No Limit
96	N-Nitrosodimethylamine												No Limit
97	N-Nitrosodi-n-Propylamine												No Limit
98	N-Nitrosodiphenylamine												No Limit
99	Phenanthrene												No Limit
100	Pyrene												No Limit
101	1,2,4-Trichlorobenzene												No Limit
102	Aldrin												No Limit
103	alpha-BHC												No Limit
104	beta-BHC												No Limit
105	gamma-BHC												No Limit
106	delta-BHC												No Limit
107	Chlordane												No Limit
108	4,4'-DDT												No Limit
109	4,4'-DDE (linked to DDT)												No Limit
110	4,4'-DDD												No Limit
111	Dieldrin												No Limit
112	alpha-Endosulfan												No Limit
113	beta-Endolsulfan												No Limit
114	Endosulfan Sulfate												No Limit
115	Endrin												No Limit
116	Endrin Aldehyde												No Limit
117	Heptachlor												No Limit
118	Heptachlor Epoxide												No Limit
119-125	PCBs sum												No Limit
126	Toxaphene												No Limit

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
Reasonable Potential Analysis and Effluent Limitations
Inglewood Oil Field, Discharge Point 005

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)								Lowest C or WLAs	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) (ug/L)
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL*							
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)						
1	Antimony	ug/L								4300.00			4300.00			Y	N	
2	Arsenic	ug/L			340.00	150.00							150.00			Y	N	
3	Beryllium	ug/L		No Criteria						Narrative			No Criteria	No Criteria	No Criteria	Y	Y	0.25
4	Cadmium	ug/L			8.03	3.67				Narrative			3.67			Y	N	
5a	Chromium (III)				2636.43	314.25				Narrative			314.25			Y	N	
5b	Chromium (VI)	ug/L			16.00	11.00				Narrative			11.00			Y	N	
6	Copper, Dry Weather	ug/L	0.6		22.63	14.42					35.56		35.56			Y	N	
6	Copper, Wet Weather	ug/L	0.6		22.63	14.42						13.70	13.70			Y	N	
7	Lead, Dry Weather	ug/L	0.6		156.24	6.09				Narrative	19.65		19.65			Y	N	
7	Lead, Wet Weather	ug/L	0.6		156.24	6.09				Narrative		76.75	76.75			Y	N	
8	Mercury	ug/L			Reserved	Reserved				0.05			0.05			Y	Y	0.1
9	Nickel	ug/L			722.19	80.29				4600.00			80.29			Y	N	
10	Selenium	ug/L				5.00				Narrative			5.00			Y	Y	0.5
11	Silver	ug/L			9.76								9.76			Y	Y	0.5
12	Thallium	ug/L								6.30			6.30			Y	Y	0.5
13	Zinc, Dry Weather	ug/L	0.6		184.55	184.55					446.55		446.55			Y	N	
13	Zinc, Wet Weather	ug/L	0.6		184.55	184.55						104.77	104.77			Y	N	
14	Cyanide	ug/L			22.00	5.20				220000			5.20			Y	Y	3
15	Asbestos	MFL		No Criteria									No Criteria	No Criteria	No Criteria	N		
16	2,3,7,8 TCDD	ug/L								1.40E-08			1.40E-08			Y	Y	0.0000016
17	Acrolein	ug/L								780.00			780.00			Y	Y	2.5
18	Acrylonitrile	ug/L								0.66			0.66			Y	Y	1
19	Benzene	ug/L								71.00			71.00			Y	Y	0.25
20	Bromoform	ug/L								360.00			360.00			Y	Y	0.25
21	Carbon Tetrachloride	ug/L								4.40			4.40			Y	Y	0.25
22	Chlorobenzene	ug/L								21000.00			21000.00			Y	Y	0.25
23	Chlorodibromomethane	ug/L								34.00			34.00			Y	Y	0.25
24	Chloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
25	2-Chloroethylvinyl ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1
26	Chloroform	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
27	Dichlorobromomethane	ug/L								46.00			46.00			Y	Y	0.25
28	1,1-Dichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
29	1,2-Dichloroethane	ug/L								99.00			99.00			Y	Y	0.25
30	1,1-Dichloroethylene	ug/L								3.20			3.20			Y	Y	0.25
31	1,2-Dichloropropane	ug/L								39.00			39.00			Y	Y	0.25
32	1,3-Dichloropropylene	ug/L								1700.00			1700.00			Y	Y	0.25
33	Ethylbenzene	ug/L								29000.00			29000.00			Y	Y	0.25
34	Methyl Bromide	ug/L								4000.00			4000.00			Y	Y	0.25
35	Methyl Chloride	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
36	Methylene Chloride	ug/L								1600.00			1600.00			Y	Y	0.88
37	1,1,2,2-Tetrachloroethane	ug/L								11.00			11.00			Y	Y	0.25
38	Tetrachloroethylene	ug/L								8.85			8.85			Y	Y	0.25
39	Toluene	ug/L								200000.00			200000.00			Y	Y	0.25
40	1,2-Trans-Dichloroethylene	ug/L								140000.00			140000.00			Y	Y	0.25
41	1,1,1-Trichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25
42	1,1,2-Trichloroethane	ug/L								42.00			42.00			Y	Y	0.25
43	Trichloroethylene	ug/L								81.00			81.00			Y	Y	0.25
44	Vinyl Chloride	ug/L								525.00			525.00			Y	Y	0.25
45	2-Chlorophenol	ug/L								400.00			400.00			Y	Y	0.47
46	2,4-Dichlorophenol	ug/L								790.00			790.00			Y	Y	0.95
47	2,4-Dimethylphenol	ug/L								2300.00			2300.00			Y	Y	0.95
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L								765.00			765.00			Y	Y	1.9
49	2,4-Dinitrophenol	ug/L								14000.00			14000.00			Y	Y	1.9
50	2-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.95
51	4-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
53	Pentachlorophenol	ug/L			11.79	9.05				8.20			8.20			Y	N	
54	Phenol	ug/L								4600000.00			4600000.00			Y	Y	0.025
55	2,4,6-Trichlorophenol	ug/L								6.50			6.50			Y	Y	0.47
56	Acenaphthene	ug/L								2700.00			2700.00			Y	Y	0.19
57	Acenaphthylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
58	Anthracene	ug/L								110000.00			110000.00			Y	Y	0.19
59	Benzidine	ug/L								0.00			0.00			Y	Y	4.7
60	Benzo(a)Anthracene	ug/L								0.05			0.05			Y	Y	1.9
61	Benzo(a)Pyrene	ug/L								0.05			0.05			Y	Y	0.47
62	Benzo(b)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.95

		REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCUL				
								Organisms only			Saltwater / Freshwater / B				
CTR#	Parameters	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA
1	Antimony	6		B<=C, Step 7		Ud	No effluent data & B<=C								
2	Arsenic	3.3		B<=C, Step 7		Ud	No effluent data & B<=C								
3	Beryllium		N	No Criteria	No Criteria	Uc	No Criteria								
4	Cadmium	0.45		B<=C, Step 7	No Criteria	Ud	No effluent data & B<=C								
5a	Chromium (III)	5.75		B<=C, Step 7		Ud	No effluent data & B<=C								
5b	Chromium (VI)	1.25		B<=C, Step 7		Ud	No effluent data & B<=C								
6	Copper, Dry Weather	51		B>C & no eff data		ud	No effluent data & B>C		2.01		0.32		0.53	18.76	18.76
6	Copper, Wet Weather	51		B>C & no eff data		ud	No effluent data & B>C		2.01		0.32	4.40	0.53		4.40
7	Lead, Dry Weather	31.7		B>C & no eff data		ud	No effluent data & B>C		2.01		0.32		0.53	10.36	10.36
7	Lead, Wet Weather	31.7		B<=C, Step 7		Ud	No effluent data & B<=C		2.01		0.32	24.64	0.53		24.64
8	Mercury		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
9	Nickel	9.1		B<=C, Step 7		Ud	No effluent data & B<=C								
10	Selenium		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
11	Silver		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
12	Thallium		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
13	Zinc, Dry Weather	230		B<=C, Step 7		Ud	No effluent data & B<=C		2.01		0.32		0.53	235.53	235.53
13	Zinc, Wet Weather	230		B>C & no eff data		ud	No effluent data & B>C		2.01		0.32	33.64	0.53	55.26	33.64
14	Cyanide		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
15	Asbestos			No Criteria	No Criteria	Uc	No Criteria								
16	2,3,7,8 TCDD		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
17	Acrolein		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
18	Acrylonitrile		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
19	Benzene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
20	Bromoform		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
21	Carbon Tetrachloride		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
22	Chlorobenzene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
23	Chlorodibromomethane		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
24	Chloroethane		N	No Criteria	No Criteria	Uc	No Criteria								
25	2-Chloroethylvinyl ether		N	No Criteria	No Criteria	Uc	No Criteria								
26	Chloroform		N	No Criteria	No Criteria	Uc	No Criteria								
27	Dichlorobromomethane		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
28	1,1-Dichloroethane		N	No Criteria	No Criteria	Uc	No Criteria								
29	1,2-Dichloroethane		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
30	1,1-Dichloroethylene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
31	1,2-Dichloropropane		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
32	1,3-Dichloropropylene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
33	Ethylbenzene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
34	Methyl Bromide		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
35	Methyl Chloride		N	No Criteria	No Criteria	Uc	No Criteria								
36	Methylene Chloride		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
37	1,1,2,2-Tetrachloroethane		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
38	Tetrachloroethylene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
39	Toluene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
40	1,2-Trans-Dichloroethylene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
41	1,1,1-Trichloroethane		N	No Criteria	No Criteria	Uc	No Criteria								
42	1,1,2-Trichloroethane		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
43	Trichloroethylene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
44	Vinyl Chloride		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
45	2-Chlorophenol		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
46	2,4-Dichlorophenol		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
47	2,4-Dimethylphenol		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
49	2,4-Dinitrophenol		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
50	2-Nitrophenol		N	No Criteria	No Criteria	Uc	No Criteria								
51	4-Nitrophenol		N	No Criteria	No Criteria	Uc	No Criteria								
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)		N	No Criteria	No Criteria	Uc	No Criteria								
53	Pentachlorophenol	1.6		B<=C, Step 7		Ud	No effluent data & B<=C								
54	Phenol		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
55	2,4,6-Trichlorophenol		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
56	Acenaphthene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
57	Acenaphthylene		N	No Criteria	No Criteria	Uc	No Criteria								
58	Anthracene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
59	Benzidine		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
60	Benzo(a)Anthracene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
61	Benzo(a)Pyrene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
62	Benzo(b)Fluoranthene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								

CTR#	Parameters	ATIONS asin Plan AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS Lowest AMEL	Lowest MDEL	Recommendation
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, Dry Weather	1.55	29.12	3.11	58.41331	29.12	58.41	Limit Needed
6	Copper, Wet Weather	1.55	6.83	3.11	13.7	6.83	13.70	Limit Needed
7	Lead, Dry Weather	1.55	16.09	3.11	32.27845	16.09	32.28	Limit Needed
7	Lead, Wet Weather	1.55	38.26	3.11	76.75	38.26	76.75	Limit Needed
8	Mercury							No Limit
9	Nickel							No Limit
10	Selenium							No Limit
11	Silver							No Limit
12	Thallium							No Limit
13	Zinc, Dry Weather	1.55	365.64	3.11	733.5338	365.64	733.53	Limit Needed
13	Zinc, Wet Weather	1.55	52.22	3.11	104.77	52.22	104.77	Limit Needed
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
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)						Ballona Creek Metals TMDL*		Lowest C or WLAs	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) (ug/L)
					Freshwater		Saltwater		Human Health for consumption of:									
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)						
63	Benzo(ghi)Perylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9
64	Benzo(k)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.24
65	Bis(2-Chloroethoxy)Methane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
66	Bis(2-Chloroethyl)Ether	ug/L								1.40			1.40			Y	Y	0.19
67	Bis(2-Chloroisopropyl)Ether	ug/L								170000.00			170000.00			Y	Y	0.19
68	Bis(2-Ethylhexyl)Phthalate	ug/L								5.90			5.90			Y	N	
69	4-Bromophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.47
70	Butylbenzyl Phthalate	ug/L								5200.00			5200.00			Y	Y	1.9
71	2-Chloronaphthalene	ug/L								4300.00			4300.00			Y	Y	0.19
72	4-Chlorophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
73	Chrysene	ug/L								0.05			0.05			Y	Y	0.19
74	Dibenzo(a,h)Anthracene	ug/L								0.05			0.05			Y	Y	0.24
75	1,2-Dichlorobenzene	ug/L								17000.00			17000.00			Y	Y	0.19
76	1,3-Dichlorobenzene	ug/L								2600.00			2600.00			Y	Y	0.19
77	1,4-Dichlorobenzene	ug/L								2600.00			2600.00			Y	Y	0.19
78	3,3 Dichlorobenzidine	ug/L								0.08			0.08			Y	Y	1.9
79	Diethyl Phthalate	ug/L								120000.00			120000.00			Y	Y	0.47
80	Dimethyl Phthalate	ug/L								2900000.00			2900000.00			Y	Y	0.24
81	Di-n-Butyl Phthalate	ug/L								12000.00			12000.00			Y	Y	0.95
82	2,4-Dinitrotoluene	ug/L								9.10			9.10			Y	Y	1.9
83	2,6-Dinitrotoluene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9
84	Di-n-Octyl Phthalate	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	N	
85	1,2-Diphenylhydrazine	ug/L								0.54			0.54			Y	Y	0.47
86	Fluoranthene	ug/L								370.00			370.00			Y	N	
87	Fluorene	ug/L								14000.00			14000.00			Y	Y	0.19
88	Hexachlorobenzene	ug/L								0.00			0.00			Y	Y	0.47
89	Hexachlorobutadiene	ug/L								50.00			50.00			Y	Y	0.47
90	Hexachlorocyclopentadiene	ug/L								17000.00			17000.00			Y	Y	1.9
91	Hexachloroethane	ug/L								8.90			8.90			Y	Y	0.47
92	Indeno(1,2,3-cd)Pyrene	ug/L								0.05			0.05			Y	Y	0.95
93	Isophorone	ug/L								600.00			600.00			Y	Y	0.47
94	Naphthalene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.47
95	Nitrobenzene	ug/L								1900.00			1900.00			Y	Y	0.47
96	N-Nitrosodimethylamine	ug/L								8.10			8.10			Y	Y	0.95
97	N-Nitrosodi-n-Propylamine	ug/L								1.40			1.40			Y	Y	0.95
98	N-Nitrosodiphenylamine	ug/L								16.00			16.00			Y	Y	0.47
99	Phenanthrene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19
100	Pyrene	ug/L								11000.00			11000.00			Y	N	
101	1,2,4-Trichlorobenzene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.47
102	Aldrin	ug/L			3.00					0.00			0.00			Y	Y	0.0014
103	alpha-BHC	ug/L								0.01			0.01			Y	Y	0.0024
104	beta-BHC	ug/L								0.05			0.05			Y	Y	0.0038
105	gamma-BHC	ug/L			0.95					0.06			0.06			Y	Y	0.0028
106	delta-BHC	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.0033
107	Chlordane	ug/L			2.40	0.00				0.00			0.00			Y	Y	0.076
108	4,4'-DDT	ug/L			1.10	0.00				0.00			0.00			Y	N	
109	4,4'-DDE (linked to DDT)	ug/L								0.00			0.00			Y	Y	0.0067
110	4,4'-DDD	ug/L								0.00			0.00			Y	Y	0.0038
111	Dieldrin	ug/L			0.24	0.06				0.00			0.00			Y	Y	0.0019
112	alpha-Endosulfan	ug/L	0.6		0.22	0.06				240.00			0.06			Y	N	0.0028
113	beta-Endolsulfan	ug/L			0.22	0.06				240.00			0.06			Y	Y	0.0019
114	Endosulfan Sulfate	ug/L								240.00			240.00			Y	Y	0.0028
115	Endrin	ug/L			0.09	0.04				0.81			0.04			Y	Y	0.0019
116	Endrin Aldehyde	ug/L								0.81			0.81			Y	Y	0.0019
117	Heptachlor	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0028
118	Heptachlor Epoxide	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0024
119-125	PCBs sum	ug/L				0.01				0.00			0.00			Y	Y	0.25
126	Toxaphene	ug/L			0.73	0.00				0.00			0.00			Y	Y	0.25

* Ballona Creek Metals TMDL (Resolution No. R13-010)

		REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCUL				
								Organisms only			Saltwater / Freshwater / B				
CTR#	Parameters	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA
63	Benzo(ghi)Perylene		N	No Criteria	No Criteria	Uc	No Criteria								
64	Benzo(k)Fluoranthene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
65	Bis(2-Chloroethoxy)Methane		N	No Criteria	No Criteria	Uc	No Criteria								
66	Bis(2-Chloroethyl)Ether		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
67	Bis(2-Chloroisopropyl)Ether		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
68	Bis(2-Ethylhexyl)Phthalate	3.7		B<=C, Step 7		Ud	No effluent data & B<=C								
69	4-Bromophenyl Phenyl Ether		N	No Criteria	No Criteria	Uc	No Criteria								
70	Butylbenzyl Phthalate		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
71	2-Chloronaphthalene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
72	4-Chlorophenyl Phenyl Ether		N	No Criteria	No Criteria	Uc	No Criteria								
73	Chrysene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
74	Dibenzo(a,h)Anthracene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
75	1,2-Dichlorobenzene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
76	1,3-Dichlorobenzene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
77	1,4-Dichlorobenzene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
78	3,3 Dichlorobenzidine		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
79	Diethyl Phthalate		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
80	Dimethyl Phthalate		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
81	Di-n-Butyl Phthalate		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
82	2,4-Dinitrotoluene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
83	2,6-Dinitrotoluene		N	No Criteria	No Criteria	Uc	No Criteria								
84	Di-n-Octyl Phthalate	3		No Criteria	No Criteria	Uc	No Criteria								
85	1,2-Diphenylhydrazine		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
86	Fluoranthene	0.2		B<=C, Step 7		Ud	No effluent data & B<=C								
87	Fluorene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
88	Hexachlorobenzene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
89	Hexachlorobutadiene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
90	Hexachlorocyclopentadiene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
91	Hexachloroethane		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
92	Indeno(1,2,3-cd)Pyrene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
93	Isophorone		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
94	Naphthalene		N	No Criteria	No Criteria	Uc	No Criteria								
95	Nitrobenzene		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
96	N-Nitrosodimethylamine		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
97	N-Nitrosodi-n-Propylamine		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
98	N-Nitrosodiphenylamine		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
99	Phenanthrene		N	No Criteria	No Criteria	Uc	No Criteria								
100	Pyrene	0.21		B<=C, Step 7		Ud	No effluent data & B<=C								
101	1,2,4-Trichlorobenzene		N	No Criteria	No Criteria	Uc	No Criteria								
102	Aldrin		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
103	alpha-BHC		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
104	beta-BHC		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
105	gamma-BHC		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
106	delta-BHC		N	No Criteria	No Criteria	Uc	No Criteria								
107	Chlordane		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
108	4,4'-DDT	0.0074		B>C & no eff data		ud	No effluent data & B>C								
109	4,4'-DDE (linked to DDT)		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
110	4,4'-DDD		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
111	Dieldrin		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
112	alpha-Endosulfan	0.0093	N	B<=C, Step 7		Ud	No effluent data & B<=C								
113	beta-Endolsulfan		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
114	Endosulfan Sulfate		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
115	Endrin		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
116	Endrin Aldehyde		N	No detected value of B, Step 7		ud	No effluent data & B is ND								
117	Heptachlor		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
118	Heptachlor Epoxide		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
119-125	PCBs sum		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								
126	Toxaphene		Y	No detected value of B, Step 7		ud	No effluent data & B is ND								

CTR#	Parameters	ATIONS asin Plan AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS Lowest AMEL	Lowest MDEL	Recommendation
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
92	Indeno(1,2,3-cd)Pyrene							No Limit
93	Isophorone							No Limit
94	Naphthalene							No Limit
95	Nitrobenzene							No Limit
96	N-Nitrosodimethylamine							No Limit
97	N-Nitrosodi-n-Propylamine							No Limit
98	N-Nitrosodiphenylamine							No Limit
99	Phenanthrene							No Limit
100	Pyrene							No Limit
101	1,2,4-Trichlorobenzene							No Limit
102	Aldrin							No Limit
103	alpha-BHC							No Limit
104	beta-BHC							No Limit
105	gamma-BHC							No Limit
106	delta-BHC							No Limit
107	Chlordane							No Limit
108	4,4'-DDT							No Limit
109	4,4'-DDE (linked to DDT)							No Limit
110	4,4'-DDD							No Limit
111	Dieldrin							No Limit
112	alpha-Endosulfan							No Limit
113	beta-Endolsulfan							No Limit
114	Endosulfan Sulfate							No Limit
115	Endrin							No Limit
116	Endrin Aldehyde							No Limit
117	Heptachlor							No Limit
118	Heptachlor Epoxide							No Limit
119-125	PCBs sum							No Limit
126	Toxaphene							No Limit

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
Reasonable Potential Analysis and Effluent Limitations
Inglewood Oil Field, Discharge Point 006

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)								Lowest C or WLAs	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) (ug/L)	Enter the pollutant B detected max conc (ug/L)
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL*								
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)							
1	Antimony	ug/L		1						4300.00			4300.00	No	No	Y	N		6
2	Arsenic	ug/L		42	340.00	150.00							150.00	No	No	Y	N		3.3
3	Beryllium	ug/L		No Criteria						Narrative			No Criteria	No Criteria	No Criteria	Y	Y	0.25	
4	Cadmium	ug/L		1.4	8.03	3.67				Narrative			3.67	No	No	Y	N		0.45
5a	Chromium (III)			110	2636.43	314.25				Narrative			314.25	No	No	Y	N		5.75
5b	Chromium (VI)	ug/L		0.94	16.00	11.00				Narrative			11.00	No	No	Y	N		1.25
6	Copper, Dry Weather	ug/L	0.6		22.63	14.42					35.56		35.56			Y	N		51
6	Copper, Wet Weather	ug/L	0.6	110	22.63	14.42						13.70	13.70	Yes	Yes	Y	N		51
7	Lead, Dry Weather	ug/L	0.6		156.24	6.09				Narrative	19.65		19.65			Y	N		31.7
7	Lead, Wet Weather	ug/L	0.6	94	156.24	6.09				Narrative		76.75	76.75	Yes	Yes	Y	N		31.7
8	Mercury	ug/L	0.6	0.2	Reserved	Reserved				0.05			0.05	Yes	Yes	Y	Y	0.1	
9	Nickel	ug/L		73	722.19	80.29				4600.00			80.29	No	No	Y	N		9.1
10	Selenium	ug/L		2.1		5.00				Narrative			5.00	No	No	Y	Y	0.5	
11	Silver	ug/L		1	9.76								9.76	No	No	Y	Y	0.5	
12	Thallium	ug/L		1						6.30			6.30	No	No	Y	Y	0.5	
13	Zinc, Dry Weather	ug/L	0.6		184.55	184.55					446.55		446.55			Y	N		230
13	Zinc, Wet Weather	ug/L	0.6	380	184.55	184.55						104.77	104.77	Yes	Yes	Y	N		230
14	Cyanide	ug/L		2	22.00	5.20				220000			5.20	No	No	Y	Y	3	
15	Asbestos	MFL		No Criteria									No Criteria	No Criteria	No Criteria	N			
16	2,3,7,8 TCDD	ug/L								0.00			0.00			Y	Y	0.0000016	
17	Acrolein	ug/L		5						780.00			780.00	No	No	Y	Y	2.5	
18	Acrylonitrile	ug/L								0.66			0.66			Y	Y	1	
19	Benzene	ug/L		0.5						71.00			71.00	No	No	Y	Y	0.25	
20	Bromoform	ug/L		1						360.00			360.00	No	No	Y	Y	0.25	
21	Carbon Tetrachloride	ug/L		0.5						4.40			4.40	No	No	Y	Y	0.25	
22	Chlorobenzene	ug/L		0.5						21000.00			21000.00	No	No	Y	Y	0.25	
23	Chlorodibromomethane	ug/L		0.5						34.00			34.00	No	No	Y	Y	0.25	
24	Chloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
25	2-Chloroethylvinyl ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1	
26	Chloroform	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
27	Dichlorobromomethane	ug/L		0.5						46.00			46.00	No	No	Y	Y	0.25	
28	1,1-Dichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
29	1,2-Dichloroethane	ug/L		0.5						99.00			99.00	No	No	Y	Y	0.25	
30	1,1-Dichloroethylene	ug/L		0.5						3.20			3.20	No	No	Y	Y	0.25	
31	1,2-Dichloropropane	ug/L		0.5						39.00			39.00	No	No	Y	Y	0.25	
32	1,3-Dichloropropylene	ug/L		0.5						1700.00			1700.00	No	No	Y	Y	0.25	
33	Ethylbenzene	ug/L		0.5						29000.00			29000.00	No	No	Y	Y	0.25	
34	Methyl Bromide	ug/L		0.5						4000.00			4000.00	No	No	Y	Y	0.25	
35	Methyl Chloride	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
36	Methylene Chloride	ug/L		2.5						1600.00			1600.00	No	No	Y	Y	0.88	
37	1,1,2,2-Tetrachloroethane	ug/L		0.6						11.00			11.00	No	No	Y	Y	0.25	
38	Tetrachloroethylene	ug/L		1						8.85			8.85	No	No	Y	Y	0.25	
39	Toluene	ug/L		1						200000.00			200000.00	No	No	Y	Y	0.25	
40	1,2-Trans-Dichloroethylene	ug/L		0.5						140000.00			140000.00	No	No	Y	Y	0.25	
41	1,1,1-Trichloroethane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.25	
42	1,1,2-Trichloroethane	ug/L		0.5						42.00			42.00	No	No	Y	Y	0.25	
43	Trichloroethylene	ug/L		1						81.00			81.00	No	No	Y	Y	0.25	
44	Vinyl Chloride	ug/L		0.5						525.00			525.00	No	No	Y	Y	0.25	
45	2-Chlorophenol	ug/L		1						400.00			400.00	No	No	Y	Y	0.47	
46	2,4-Dichlorophenol	ug/L		2.1						790.00			790.00	No	No	Y	Y	0.95	
47	2,4-Dimethylphenol	ug/L		2.1						2300.00			2300.00	No	No	Y	Y	0.95	
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L								765.00			765.00			Y	Y	1.9	
49	2,4-Dinitrophenol	ug/L		5						14000.00			14000.00	No	No	Y	Y	1.9	
50	2-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.95	
51	4-Nitrophenol	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9	
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
53	Pentachlorophenol	ug/L		1.7	11.79	9.05				8.20			8.20	No	No	Y	N		1.6
54	Phenol	ug/L		5						4600000.00			4600000.00	No	No	Y	Y	0.025	
55	2,4,6-Trichlorophenol	ug/L		1						6.50			6.50	No	No	Y	Y	0.47	
56	Acenaphthene	ug/L		0.5						2700.00			2700.00	No	No	Y	Y	0.19	
57	Acenaphthylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
58	Anthracene	ug/L		5						110000.00			110000.00	No	No	Y	Y	0.19	
59	Benzidine	ug/L								0.00			0.00			Y	Y	4.7	
60	Benzo(a)Anthracene	ug/L								0.05			0.05			Y	Y	1.9	
61	Benzo(a)Pyrene	ug/L								0.05			0.05			Y	Y	0.47	
62	Benzo(b)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.95	
63	Benzo(ghi)Perylene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9	

		REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALC				
CTR#							Organisms only			Saltwater / Freshwater				
	Parameters	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA
1	Antimony		B<=C, Step 7		No	MEC<C & B<=C								
2	Arsenic		B<=C, Step 7		No	MEC<C & B<=C								
3	Beryllium	N	No Criteria	No Criteria	Uc	No Criteria								
4	Cadmium		B<=C, Step 7	No Criteria	No	MEC<C & B<=C								
5a	Chromium (III)		B<=C, Step 7		No	MEC<C & B<=C								
5b	Chromium (VI)		B<=C, Step 7		No	MEC<C & B<=C								
6	Copper, Dry Weather		B>C & no eff data		ud	No effluent data & B>C		2.01		0.32		0.53	18.76	18.76
6	Copper, Wet Weather		Limit required, B>C & pollutant detected in effluent		Yes	MEC>=C		2.01		0.32	4.40	0.53		4.40
7	Lead, Dry Weather		B>C & no eff data		ud	No effluent data & B>C		2.01		0.32		0.53	10.36	10.36
7	Lead, Wet Weather		B<=C, Step 7		Yes	MEC>=C		2.01		0.32	24.64	0.53		24.64
8	Mercury	Y	No detected value of B, Step 7		Yes	MEC>=C	0.051	2.01	0.10232					
9	Nickel		B<=C, Step 7		No	MEC<C & B<=C								
10	Selenium	N	No detected value of B, Step 7		No	MEC<C & B is ND								
11	Silver	N	No detected value of B, Step 7		No	MEC<C & B is ND								
12	Thallium	N	No detected value of B, Step 7		No	MEC<C & B is ND								
13	Zinc, Dry Weather		B<=C, Step 7		Ud	No effluent data & B<=C		2.01		0.32		0.53	235.53	235.53
13	Zinc, Wet Weather		Limit required, B>C & pollutant detected in effluent		Yes	MEC>=C		2.01		0.32	33.64	0.53	55.26	33.64
14	Cyanide	N	No detected value of B, Step 7		No	MEC<C & B is ND								
15	Asbestos		No Criteria	No Criteria	Uc	No Criteria								
16	2,3,7,8 TCDD	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
17	Acrolein	N	No detected value of B, Step 7		No	MEC<C & B is ND								
18	Acrylonitrile	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
19	Benzene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
20	Bromoform	N	No detected value of B, Step 7		No	MEC<C & B is ND								
21	Carbon Tetrachloride	N	No detected value of B, Step 7		No	MEC<C & B is ND								
22	Chlorobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
23	Chlorodibromomethane	N	No detected value of B, Step 7		No	MEC<C & B is ND								
24	Chloroethane	N	No Criteria	No Criteria	Uc	No Criteria								
25	2-Chloroethylvinyl ether	N	No Criteria	No Criteria	Uc	No Criteria								
26	Chloroform	N	No Criteria	No Criteria	Uc	No Criteria								
27	Dichlorobromomethane	N	No detected value of B, Step 7		No	MEC<C & B is ND								
28	1,1-Dichloroethane	N	No Criteria	No Criteria	Uc	No Criteria								
29	1,2-Dichloroethane	N	No detected value of B, Step 7		No	MEC<C & B is ND								
30	1,1-Dichloroethylene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
31	1,2-Dichloropropane	N	No detected value of B, Step 7		No	MEC<C & B is ND								
32	1,3-Dichloropropylene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
33	Ethylbenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
34	Methyl Bromide	N	No detected value of B, Step 7		No	MEC<C & B is ND								
35	Methyl Chloride	N	No Criteria	No Criteria	Uc	No Criteria								
36	Methylene Chloride	N	No detected value of B, Step 7		No	MEC<C & B is ND								
37	1,1,2,2-Tetrachloroethane	N	No detected value of B, Step 7		No	MEC<C & B is ND								
38	Tetrachloroethylene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
39	Toluene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
40	1,2-Trans-Dichloroethylene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
41	1,1,1-Trichloroethane	N	No Criteria	No Criteria	Uc	No Criteria								
42	1,1,2-Trichloroethane	N	No detected value of B, Step 7		No	MEC<C & B is ND								
43	Trichloroethylene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
44	Vinyl Chloride	N	No detected value of B, Step 7		No	MEC<C & B is ND								
45	2-Chlorophenol	N	No detected value of B, Step 7		No	MEC<C & B is ND								
46	2,4-Dichlorophenol	N	No detected value of B, Step 7		No	MEC<C & B is ND								
47	2,4-Dimethylphenol	N	No detected value of B, Step 7		No	MEC<C & B is ND								
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	N	No detected value of B, Step 7		ud	No effluent data & B is ND								
49	2,4-Dinitrophenol	N	No detected value of B, Step 7		No	MEC<C & B is ND								
50	2-Nitrophenol	N	No Criteria	No Criteria	Uc	No Criteria								
51	4-Nitrophenol	N	No Criteria	No Criteria	Uc	No Criteria								
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	N	No Criteria	No Criteria	Uc	No Criteria								
53	Pentachlorophenol		B<=C, Step 7		No	MEC<C & B<=C								
54	Phenol	N	No detected value of B, Step 7		No	MEC<C & B is ND								
55	2,4,6-Trichlorophenol	N	No detected value of B, Step 7		No	MEC<C & B is ND								
56	Acenaphthene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
57	Acenaphthylene	N	No Criteria	No Criteria	Uc	No Criteria								
58	Anthracene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
59	Benzidine	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
60	Benzo(a)Anthracene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
61	Benzo(a)Pyrene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
62	Benzo(b)Fluoranthene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
63	Benzo(ghi)Perylene	N	No Criteria	No Criteria	Uc	No Criteria								

CTR#	Parameters	ULATIONS / Basin Plan AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS Lowest AMEL	Lowest MDEL	Recommendation
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, Dry Weather	1.55	29.12	3.11	58.41331	29.12	**58.41**	Limit Needed
6	Copper, Wet Weather	1.55	6.83	3.11	13.7	6.83	**13.70**	Limit Needed
7	Lead, Dry Weather	1.55	16.09	3.11	32.27845	16.09	**32.28**	Limit Needed
7	Lead, Wet Weather	1.55	38.26	3.11	76.75	38.26	**76.75**	Limit Needed
8	Mercury	1.55		3.11		0.05	**0.10**	Limit Needed
9	Nickel							No Limit
10	Selenium							No Limit
11	Silver							No Limit
12	Thallium							No Limit
13	Zinc, Dry Weather	1.55	365.64	3.11	733.5338	365.64	**733.53**	Limit Needed
13	Zinc, Wet Weather	1.55	52.22	3.11	104.77	52.22	**104.77**	Limit Needed
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
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)								Lowest C or WLAs	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) (ug/L)	Enter the pollutant B detected max conc (ug/L)
					Freshwater		Saltwater		Human Health for consumption of:		Ballona Creek Metals TMDL*								
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Dry Weather WLAs (Based on Chronic CTR)	Wet Weather WLAs (Based on Acute CTR)							
64	Benzo(k)Fluoranthene	ug/L								0.05			0.05			Y	Y	0.24	
65	Bis(2-Chloroethoxy)Methane	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
66	Bis(2-Chloroethyl)Ether	ug/L								1.40			1.40			Y	Y	0.19	
67	Bis(2-Chloroisopropyl)Ether	ug/L		5						170000.00			170000.00	No	No	Y	Y	0.19	
68	Bis(2-Ethylhexyl)Phthalate	ug/L		5						5.90			5.90	No	No	Y	N		3.7
69	4-Bromophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.47	
70	Butylbenzyl Phthalate	ug/L		0.5						5200.00			5200.00	No	No	Y	Y	1.9	
71	2-Chloronaphthalene	ug/L		1						4300.00			4300.00	No	No	Y	Y	0.19	
72	4-Chlorophenyl Phenyl Ether	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
73	Chrysene	ug/L								0.05			0.05			Y	Y	0.19	
74	Dibenzo(a,h)Anthracene	ug/L								0.05			0.05			Y	Y	0.24	
75	1,2-Dichlorobenzene	ug/L		0.5						17000.00			17000.00	No	No	Y	Y	0.19	
76	1,3-Dichlorobenzene	ug/L		1						2600.00			2600.00	No	No	Y	Y	0.19	
77	1,4-Dichlorobenzene	ug/L		0.5						2600.00			2600.00	No	No	Y	Y	0.19	
78	3,3 Dichlorobenzidine	ug/L								0.08			0.08			Y	Y	1.9	
79	Diethyl Phthalate	ug/L		5						120000.00			120000.00	No	No	Y	Y	0.47	
80	Dimethyl Phthalate	ug/L		5						2900000.00			2900000.00	No	No	Y	Y	0.24	
81	Di-n-Butyl Phthalate	ug/L		5						12000.00			12000.00	No	No	Y	Y	0.95	
82	2,4-Dinitrotoluene	ug/L		5						9.10			9.10	No	No	Y	Y	1.9	
83	2,6-Dinitrotoluene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	1.9	
84	Di-n-Octyl Phthalate	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	N		3
85	1,2-Diphenylhydrazine	ug/L								0.54			0.54			Y	Y	0.47	
86	Fluoranthene	ug/L		5						370.00			370.00	No	No	Y	N		0.2
87	Fluorene	ug/L		5						14000.00			14000.00	No	No	Y	Y	0.19	
88	Hexachlorobenzene	ug/L								0.00			0.00			Y	Y	0.47	
89	Hexachlorobutadiene	ug/L		1						50.00			50.00	No	No	Y	Y	0.47	
90	Hexachlorocyclopentadiene	ug/L		5						17000.00			17000.00	No	No	Y	Y	1.9	
91	Hexachloroethane	ug/L		1						8.90			8.90	No	No	Y	Y	0.47	
92	Indeno(1,2,3-cd)Pyrene	ug/L								0.05			0.05			Y	Y	0.95	
93	Isophorone	ug/L		1						600.00			600.00	No	No	Y	Y	0.47	
94	Naphthalene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.47	
95	Nitrobenzene	ug/L		5						1900.00			1900.00	No	No	Y	Y	0.47	
96	N-Nitrosodimethylamine	ug/L		5						8.10			8.10	No	No	Y	Y	0.95	
97	N-Nitrosodi-n-Propylamine	ug/L								1.40			1.40			Y	Y	0.95	
98	N-Nitrosodiphenylamine	ug/L		5						16.00			16.00	No	No	Y	Y	0.47	
99	Phenanthrene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.19	
100	Pyrene	ug/L		5						11000.00			11000.00	No	No	Y	N		0.21
101	1,2,4-Trichlorobenzene	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.47	
102	Aldrin	ug/L			3.00					0.00			0.00			Y	Y	0.0014	
103	alpha-BHC	ug/L		0.0053						0.01			0.01	No	No	Y	Y	0.0024	
104	beta-BHC	ug/L		0.011						0.05			0.05	No	No	Y	Y	0.0038	
105	gamma-BHC	ug/L		0.011	0.95					0.06			0.06	No	No	Y	Y	0.0028	
106	delta-BHC	ug/L		No Criteria									No Criteria	No Criteria	No Criteria	Y	Y	0.0033	
107	Chlordane	ug/L			2.40	0.00				0.00			0.00			Y	Y	0.076	
108	4,4'-DDT	ug/L			1.10	0.00				0.00			0.00			Y	N		0.0074
109	4,4'-DDE (linked to DDT)	ug/L								0.00			0.00			Y	Y	0.0067	
110	4,4'-DDD	ug/L								0.00			0.00			Y	Y	0.0038	
111	Dieldrin	ug/L			0.24	0.06				0.00			0.00			Y	Y	0.0019	
112	alpha-Endosulfan	ug/L	0.6		0.22	0.06				240.00			0.06			Y	N	0.0028	0.0093
113	beta-Endolsulfan	ug/L			0.22	0.06				240.00			0.06			Y	Y	0.0019	
114	Endosulfan Sulfate	ug/L		0.011						240.00			240.00	No	No	Y	Y	0.0028	
115	Endrin	ug/L		0.0053	0.09	0.04				0.81			0.04	No	No	Y	Y	0.0019	
116	Endrin Aldehyde	ug/L		0.011						0.81			0.81	No	No	Y	Y	0.0019	
117	Heptachlor	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0028	
118	Heptachlor Epoxide	ug/L			0.52	0.00				0.00			0.00			Y	Y	0.0024	
119-125	PCBs sum	ug/L				0.01				0.00			0.00			Y	Y	0.25	
126	Toxaphene	ug/L			0.73	0.00				0.00			0.00			Y	Y	0.25	

* Ballona Creek Metals TMDL (Resolution No. R13-010)

		REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALC				
CTR#							Organisms only			Saltwater / Freshwater				
	Parameters	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA
64	Benzo(k)Fluoranthene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
65	Bis(2-Chloroethoxy)Methane	N	No Criteria	No Criteria	Uc	No Criteria								
66	Bis(2-Chloroethyl)Ether	N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
67	Bis(2-Chloroisopropyl)Ether	N	No detected value of B, Step 7		No	MEC<C & B is ND								
68	Bis(2-Ethylhexyl)Phthalate		B<=C, Step 7		No	MEC<C & B<=C								
69	4-Bromophenyl Phenyl Ether	N	No Criteria	No Criteria	Uc	No Criteria								
70	Butylbenzyl Phthalate	N	No detected value of B, Step 7		No	MEC<C & B is ND								
71	2-Chloronaphthalene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
72	4-Chlorophenyl Phenyl Ether	N	No Criteria	No Criteria	Uc	No Criteria								
73	Chrysene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
74	Dibenzo(a,h)Anthracene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
75	1,2-Dichlorobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
76	1,3-Dichlorobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
77	1,4-Dichlorobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
78	3,3 Dichlorobenzidine	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
79	Diethyl Phthalate	N	No detected value of B, Step 7		No	MEC<C & B is ND								
80	Dimethyl Phthalate	N	No detected value of B, Step 7		No	MEC<C & B is ND								
81	Di-n-Butyl Phthalate	N	No detected value of B, Step 7		No	MEC<C & B is ND								
82	2,4-Dinitrotoluene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
83	2,6-Dinitrotoluene	N	No Criteria	No Criteria	Uc	No Criteria								
84	Di-n-Octyl Phthalate		No Criteria	No Criteria	Uc	No Criteria								
85	1,2-Diphenylhydrazine	N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
86	Fluoranthene		B<=C, Step 7		No	MEC<C & B<=C								
87	Fluorene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
88	Hexachlorobenzene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
89	Hexachlorobutadiene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
90	Hexachlorocyclopentadiene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
91	Hexachloroethane	N	No detected value of B, Step 7		No	MEC<C & B is ND								
92	Indeno(1,2,3-cd)Pyrene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
93	Isophorone	N	No detected value of B, Step 7		No	MEC<C & B is ND								
94	Naphthalene	N	No Criteria	No Criteria	Uc	No Criteria								
95	Nitrobenzene	N	No detected value of B, Step 7		No	MEC<C & B is ND								
96	N-Nitrosodimethylamine	N	No detected value of B, Step 7		No	MEC<C & B is ND								
97	N-Nitrosodi-n-Propylamine	N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
98	N-Nitrosodiphenylamine	N	No detected value of B, Step 7		No	MEC<C & B is ND								
99	Phenanthrene	N	No Criteria	No Criteria	Uc	No Criteria								
100	Pyrene		B<=C, Step 7		No	MEC<C & B<=C								
101	1,2,4-Trichlorobenzene	N	No Criteria	No Criteria	Uc	No Criteria								
102	Aldrin	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
103	alpha-BHC	N	No detected value of B, Step 7		No	MEC<C & B is ND								
104	beta-BHC	N	No detected value of B, Step 7		No	MEC<C & B is ND								
105	gamma-BHC	N	No detected value of B, Step 7		No	MEC<C & B is ND								
106	delta-BHC	N	No Criteria	No Criteria	Uc	No Criteria								
107	Chlordane	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
108	4,4'-DDT		B>C & eff ND, Step 7		no	ud; effluent ND, MDL>C & B>C								
109	4,4'-DDE (linked to DDT)	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
110	4,4'-DDD	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
111	Dieldrin	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
112	alpha-Endosulfan	N	B<=C, Step 7		No	UD; effluent ND, MDL>C & B<=C								
113	beta-Endolsulfan	N	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
114	Endosulfan Sulfate	N	No detected value of B, Step 7		No	MEC<C & B is ND								
115	Endrin	N	No detected value of B, Step 7		No	MEC<C & B is ND								
116	Endrin Aldehyde	N	No detected value of B, Step 7		No	MEC<C & B is ND								
117	Heptachlor	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
118	Heptachlor Epoxide	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
119-125	PCBs sum	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								
126	Toxaphene	Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C, and B is ND								

CTR#	Parameters	ULATIONS / Basin Plan AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS Lowest AMEL	Lowest MDEL	Recommendation
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
92	Indeno(1,2,3-cd)Pyrene							No Limit
93	Isophorone							No Limit
94	Naphthalene							No Limit
95	Nitrobenzene							No Limit
96	N-Nitrosodimethylamine							No Limit
97	N-Nitrosodi-n-Propylamine							No Limit
98	N-Nitrosodiphenylamine							No Limit
99	Phenanthrene							No Limit
100	Pyrene							No Limit
101	1,2,4-Trichlorobenzene							No Limit
102	Aldrin							No Limit
103	alpha-BHC							No Limit
104	beta-BHC							No Limit
105	gamma-BHC							No Limit
106	delta-BHC							No Limit
107	Chlordane							No Limit
108	4,4'-DDT							No Limit
109	4,4'-DDE (linked to DDT)							No Limit
110	4,4'-DDD							No Limit
111	Dieldrin							No Limit
112	alpha-Endosulfan							No Limit
113	beta-Endolsulfan							No Limit
114	Endosulfan Sulfate							No Limit
115	Endrin							No Limit
116	Endrin Aldehyde							No Limit
117	Heptachlor							No Limit
118	Heptachlor Epoxide							No Limit
119-125	PCBs sum							No Limit
126	Toxaphene							No Limit

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