CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

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ORDER NO. R4-2018-XXXX
NPDES NO. CA0064203

WASTE DISCHARGE REQUIREMENTS FOR LOS ANGELES TURF CLUB, INC. SANTA ANITA PARK

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

Table 1. Discharger Information

Discharger	Los Angeles Turf Club, Inc.
Name of Facility	Santa Anita Park
Facility Address	285 West Huntington Drive
	Arcadia, CA 91007
	Los Angeles County
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Quality Control Board have classified this discharge as a minor discharge.	

The discharge by the Los Angeles Turf Club, Inc. from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Storm water	34.142º	-118.049º	Arcadia Wash
002 - 003	Storm water	34.140º	-118.048º	Arcadia Wash
004	Storm water	34.139º	-118.048º	Arcadia Wash
005 - 006	Storm water	34.139º	-118.046º	Arcadia Wash
007	Storm water	34.138º	-118.046º	Arcadia Wash
008	Storm water	34.138º	-118.046º	Arcadia Wash
009	Storm water	34.137º	-118.044º	Arcadia Wash
010	Storm water	34.137º	-118.044º	Arcadia Wash
011	Storm water	34.137º	-118.044º	Arcadia Wash
012	Storm water	34.137º	-118.044º	Arcadia Wash
013	Storm water	34.142º	-118.049º	Arcadia Wash
014	Storm water from CAFO area	34.142º	-118.049º	Arcadia Wash
015	Storm water from CAFO area	34.142º	-118.049º	Arcadia Wash

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Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	June 14, 2018
This Order shall become effective on:	August 1, 2018
This Order shall expire on:	July 31, 2023
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	180 days prior to the Order expiration date
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:	Minor

I, Deborah J. Smith, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 14, 2018.

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Deborah J. Smith
Executive Officer

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I. FACILITY INFORMATION

Information describing the Santa Anita Park (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 (hereinafter 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 (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 United States Environmental Protection Agency (U.S. EPA); and chapter 5.5, division 7 of the Water Code (commencing with section 13370) and State regulations (including title 27, California Code of Regulations, section 22561 et seq.). 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 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 L are also incorporated into this Order.

C. Provisions and Requirements Implementing State Law. The provisions/requirements in subsection IV.B, IV.C, and IV.D 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. R4-2006-0081 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 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.

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III. DISCHARGE PROHIBITIONS

A. The discharge of storm water to Arcadia Wash at a location other than specifically described in this Order is prohibited, and constitutes a violation of the Order. Wastes discharged shall be limited to a maximum of 10.64 (6.46 of Non-CAFO and 4.18 of CAFO) million gallon per day (MGD) of storm water. The discharge of wastewater or 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, Arcadia Wash or other waters of the State, are prohibited.

C. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or create 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 waste discharge requirements or other provisions of Division 7 of the CWC, 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 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

J. Concentrated Animal Feeding Operations (CAFO) Area Discharge Prohibitions

1. The direct or indirect discharge of process wastewater from the production area into U.S. waters is prohibited except when the discharge: (1) consists of overflow of process wastewater from a facility designed, constructed, operated and maintained to contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour duration rainfall event, as provided in Title 40 of the Code of Federal Regulations (40 CFR) section 412.13(b); and (2) does not cause the receiving water to exceed water quality objectives as specified in the Regional Board's Water Quality Control Plan, Los Angeles Region (Basin Plan).

2. The disposal of dead animals in any liquid manure or process wastewater system is prohibited as specified in 40 CFR section 412.37(a)(4). In addition, the disposal of dead animals at the facility is prohibited unless a Report of Waste Discharge (ROWD) for the

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disposal has been submitted to the Executive Officer, the Regional Board has issued or waived WDRs, and the disposal complies with all state and local laws and regulations.

3. All animals shall be prohibited from entering any surface water within the confined area.

4. The use of manure to construct containment structures or to repair, replace, improve, or raise existing containment structures is prohibited.

5. Standing water in open animal confinement areas (including corrals), feed storage areas, and dry manure storage areas that persists for more than 24 consecutive hours after a storm event is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Final Effluent Limitations – Discharge Points 001, 002-003, 004, 005-006, 007, 008, 009, 010, 011, 012, 013, 014, and 015

a. The Discharger shall maintain compliance with the following effluent limitations as described in the attached MRP (Attachment E):

Table 4. Effluent Limitations–Discharge Points 001 through 015

Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
pH	All	--	s.u.	6.5 – 8.5[1]
Temperature	All	--	ºF	86
Settleable Solids	All	--	ml/L	0.3
BOD_5 @ 20°C	All	--	mg/L	30
	001	1.33	lbs/day[2]	323
	002-003	0.11	lbs/day[2]	28
	004	0.85	lbs/day[2]	213
	005-006	0.06	lbs/day[2]	15
	007	0.07	lbs/day[2]	18
	008	0.02	lbs/day[2]	5
	009	0.07	lbs/day[2]	18
	010	0.35	lbs/day[2]	88
	011	0.09	lbs/day[2]	23
	012	0.4	lbs/day[2]	100
	013	3.11	lbs/day[2]	778
	014[3]	1.26	lbs/day[2]	315
	015[3]	2.92	lbs/day[2]	731

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Total Suspended Solids (TSS)	All	--	mg/L	75
	001	1.33	lbs/day[2]	832
	002-003	0.11	lbs/day[2]	69
	004	0.85	lbs/day[2]	532
	005-006	0.06	lbs/day[2]	38
	007	0.07	lbs/day[2]	44
	008	0.02	lbs/day[2]	13
	009	0.07	lbs/day[2]	44
	010	0.35	lbs/day[2]	219
	011	0.09	lbs/day[2]	56
	012	0.4	lbs/day[2]	250
	013	3.11	lbs/day[2]	1945
	014[3]	1.26	lbs/day[2]	788
	015[3]	2.92	lbs/day[2]	1827
Oil and Grease	All	--	mg/L	15
	001	1.33	lbs/day[2]	166
	002-003	0.11	lbs/day[2]	14
	004	0.85	lbs/day[2]	106
	005-006	0.06	lbs/day[2]	8
	007	0.07	lbs/day[2]	9
	008	0.02	lbs/day[2]	3
	009	0.07	lbs/day[2]	9
	010	0.35	lbs/day[2]	44
	011	0.09	lbs/day[2]	11
	012	0.4	lbs/day[2]	50
	013	3.11	lbs/day[2]	389
	014[3]	1.26	lbs/day[2]	158
	015[3]	2.92	lbs/day[2]	365

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Ammonia as Nitrogen[4]	All	--	mg/L	8.7
	001	1.33	lbs/day[2]	97
	002-003	0.11	lbs/day[2]	8
	004	0.85	lbs/day[2]	62
	005-006	0.06	lbs/day[2]	4
	007	0.07	lbs/day[2]	5
	008	0.02	lbs/day[2]	1
	009	0.07	lbs/day[2]	5
	010	0.35	lbs/day[2]	25
	011	0.09	lbs/day[2]	7
	012	0.4	lbs/day[2]	29
	013	3.11	lbs/day[2]	226
	014[3]	1.26	lbs/day[2]	92
	015[3]	2.92	lbs/day[2]	212
Fecal Coliform	All	--	MPN/100ml	[5]
E. coli	All	--	CFU/100 ml or MPN/100 ml	[6]
Antimony	004, 012	--	µg/L	6
	004	0.85	lbs/day[2]	0.04
	012	0.4	lbs/day[2]	0.02
Arsenic	001, 002-003, 004, 005-006, 007, 008, 009, 013, 014, 015	--	µg/L	10
	001	1.33	lbs/day[2]	0.1
	002-003	0.11	lbs/day[2]	0.009
	004	0.85	lbs/day[2]	0.07
	005-006	0.06	lbs/day[2]	0.005
	007	0.07	lbs/day[2]	0.006
	008	0.02	lbs/day[2]	0.002
	009	0.07	lbs/day[2]	0.006
	013	3.11	lbs/day[2]	0.3
	014	1.26	lbs/day[2]	0.1
	015	2.92	lbs/day[2]	0.2
Beryllium	004, 007, 013	--	µg/L	4
	004	0.85	lbs/day[2]	0.03

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Beryllium	007	0.07	lbs/day[2]	0.002
	013	3.11	lbs/day[2]	0.1
Cadmium, Total Recoverable (Wet Weather)	All	--	µg/L	3.1
	001	1.33	lbs/day[2]	0.03
	002-003	0.11	lbs/day[2]	0.003
	004	0.85	lbs/day[2]	0.02
	005-006	0.06	lbs/day[2]	0.002
	007	0.07	lbs/day[2]	0.002
	008	0.02	lbs/day[2]	0.0005
	009	0.07	lbs/day[2]	0.002
	010	0.35	lbs/day[2]	0.01
	011	0.09	lbs/day[2]	0.002
	012	0.4	lbs/day[2]	0.01
	013	3.11	lbs/day[2]	0.08
	014[3]	1.26	lbs/day[2]	0.03
	015[3]	2.92	lbs/day[2]	0.08
Cadmium, Total Recoverable (Dry Weather based on CTR criteria)	002-003, 004, 005-006, 007, 010, 013, 014, 015	--	µg/L	2.5
	002-003	0.11	lbs/day[2]	0.002
	004	0.85	lbs/day[2]	0.02
	005-006	0.06	lbs/day[2]	0.001
	007	0.07	lbs/day[2]	0.001
	010	0.35	lbs/day[2]	0.007
	013	3.11	lbs/day[2]	0.06
	014[3]	1.26	lbs/day[2]	0.03
	015[3]	2.92	lbs/day[2]	0.06
Chromium III, Total Recoverable	002-003, 004,005-006, 007, 013, 014, 015	--	µg/L	224
	002-003	0.11	lbs/day[2]	0.2
	004	0.85	lbs/day[2]	1.6

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Chromium III, Total Recoverable	005-006	0.06	lbs/day[2]	0.1
	007	0.07	lbs/day[2]	0.1
	013	3.11	lbs/day[2]	5.8
	014[3]	1.26	lbs/day[2]	2.2
	015[3]	2.92	lbs/day[2]	5.5
Chromium VI, Total Recoverable	001, 002-003, 004, 005-006, 007, 013, 014, 015	--	µg/L	16.3
	001	1.33	lbs/day[2]	0.2
	002-003	0.11	lbs/day[2]	0.02
	004	0.85	lbs/day[2]	0.1
	005-006	0.06	lbs/day[2]	0.008
	007	0.07	lbs/day[2]	0.01
	013	3.11	lbs/day[2]	0.4
	014[3]	1.26	lbs/day[2]	0.2
	015[3]	2.92	lbs/day[2]	0.4
Copper, Total Recoverable (Wet Weather)	All	--	µg/L	67.5
	001	1.33	lbs/day[2]	0.7
	002 - 003	0.11	lbs/day[2]	0.06
	004	0.85	lbs/day[2]	0.5
	005 - 006	0.06	lbs/day[2]	0.03
	007	0.07	lbs/day[2]	0.04
	008	0.02	lbs/day[2]	0.01
	009	0.07	lbs/day[2]	0.04
	010	0.35	lbs/day[2]	0.2
	011	0.09	lbs/day[2]	0.05
	012	0.4	lbs/day[2]	0.2
	013	3.11	lbs/day[2]	1.7
	014[3]	1.26	lbs/day[2]	0.7
	015[3]	2.92	lbs/day[2]	1.6

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Copper, Total Recoverable (Dry Weather based on CTR criteria)	All	--	µg/L	8.7
	001	1.33	lbs/day[2]	0.1
	002 - 003	0.11	lbs/day[2]	0.01
	004	0.85	lbs/day[2]	0.06
	005 - 006	0.06	lbs/day[2]	0.004
	007	0.07	lbs/day[2]	0.005
	008	0.02	lbs/day[2]	0.001
	009	0.07	lbs/day[2]	0.005
	010	0.35	lbs/day[2]	0.03
	011	0.09	lbs/day[2]	0.007
	012	0.4	lbs/day[2]	0.03
	013	3.11	lbs/day[2]	0.2
	014[3]	1.26	lbs/day[2]	0.1
	015[3]	2.92	lbs/day[2]	0.2
Lead, Total Recoverable (Wet Weather)	All	--	µg/L	62
	001	1.33	lbs/day[2]	0.7
	002-003	0.11	lbs/day[2]	0.06
	004	0.85	lbs/day[2]	0.4
	005-006	0.06	lbs/day[2]	0.03
	007	0.07	lbs/day[2]	0.04
	008	0.02	lbs/day[2]	0.01
	009	0.07	lbs/day[2]	0.04
	010	0.35	lbs/day[2]	0.2
	011	0.09	lbs/day[2]	0.05
	012	0.4	lbs/day[2]	0.2
	013	3.11	lbs/day[2]	1.6
	014[3]	1.26	lbs/day[2]	0.7
	015[3]	2.92	lbs/day[2]	1.5

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Lead, Total Recoverable (Dry Weather based on CTR criteria)	All	--	µg/L	2.7
	001	1.33	lbs/day[2]	0.03
	002-003	0.11	lbs/day[2]	0.003
	004	0.85	lbs/day[2]	0.02
	005-006	0.06	lbs/day[2]	0.001
	007	0.07	lbs/day[2]	0.001
	008	0.02	lbs/day[2]	0.0004
	009	0.07	lbs/day[2]	0.001
	010	0.35	lbs/day[2]	0.006
	011	0.09	lbs/day[2]	0.002
	012	0.4	lbs/day[2]	0.006
	013	3.11	lbs/day[2]	0.07
	014[3]	1.26	lbs/day[2]	0.03
	015[3]	2.92	lbs/day[2]	0.06
Mercury, Total Recoverable	001, 002-003, 004, 005-006, 007, 009, 010, 011, 012, 013, 014, 015	--	µg/L	0.1
	001	1.33	lbs/day[2]	0.001
	002-003	0.11	lbs/day[2]	0.0001
	004	0.85	lbs/day[2]	0.0007
	005-006	0.06	lbs/day[2]	0.00005
	007	0.07	lbs/day[2]	0.00006
	009	0.07	lbs/day[2]	0.00006
	010	0.42	lbs/day[2]	0.0004
	011	0.09	lbs/day[2]	0.00008
	012	0.4	lbs/day[2]	0.0003
	013	3.11	lbs/day[2]	0.003
	014[3]	1.26	lbs/day[2]	0.001
	015[3]	2.92	lbs/day[2]	0.003

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Nickel, Total Recoverable	002-003, 004, 005-006, 007, 009, 013, 014, 015	--	µg/L	56
	002-003	0.11	lbs/day[2]	0.05
	004	0.85	lbs/day[2]	0.4
	005-006	0.06	lbs/day[2]	0.03
	007	0.07	lbs/day[2]	0.03
	009	0.07	lbs/day[2]	0.03
	013	3.11	lbs/day[2]	1.5
	014[3]	1.26	lbs/day[2]	0.6
	015[3]	2.92	lbs/day[2]	1.4
Selenium, Total Recoverable	002-003, 004, 005-006, 007, 011,012, 013, 014	--	µg/L	8.2
	002-003	0.11	lbs/day[2]	0.008
	004	0.85	lbs/day[2]	0.06
	005-006	0.06	lbs/day[2]	0.004
	007	0.07	lbs/day[2]	0.005
	011	0.09	lbs/day[2]	0.006
	012	0.4	lbs/day[2]	0.03
	013	3.11	lbs/day[2]	0.2
	014[3]	1.26	lbs/day[2]	0.09
Silver, Total Recoverable	004, 005-006, 007, 014	--	µg/L	1.7
	004	0.85	lbs/day[2]	0.009
	005-006	0.06	lbs/day[2]	0.0009
	007	0.07	lbs/day[2]	0.0009
	014[3]	1.26	lbs/day[2]	0.02
Zinc, Total Recoverable (Wet Weather)	All	--	µg/L	159
	001	1.33	lbs/day[2]	1.8
	002 - 003	0.11	lbs/day[2]	0.2

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Zinc, Total Recoverable (Wet Weather)	004	0.85	lbs/day[2]	1.1
	005 - 006	0.06	lbs/day[2]	0.08
	007	0.07	lbs/day[2]	0.09
	008	0.02	lbs/day[2]	0.03
	009	0.07	lbs/day[2]	0.09
	010	0.42	lbs/day[2]	0.6
	011	0.09	lbs/day[2]	0.1
	012	0.4	lbs/day[2]	0.5
	013	3.11	lbs/day[2]	4.1
	014[3]	1.26	lbs/day[2]	1.7
	015[3]	2.92	lbs/day[2]	3.9
Zinc, Total Recoverable (Dry Weather based on CTR criteria)	All	--	µg/L	77.7
	001	1.33	lbs/day[2]	0.9
	002 - 003	0.11	lbs/day[2]	0.07
	004	0.85	lbs/day[2]	0.6
	005 - 006	0.06	lbs/day[2]	0.04
	007	0.07	lbs/day[2]	0.05
	008	0.02	lbs/day[2]	0.01
	009	0.07	lbs/day[2]	0.05
	010	0.42	lbs/day[2]	0.3
	011	0.09	lbs/day[2]	0.06
	012	0.4	lbs/day[2]	0.3
	013	3.11	lbs/day[2]	2
	014[3]	1.26	lbs/day[2]	0.8
	015[3]	2.92	lbs/day[2]	1.9

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Bis(2-ethylhexyl)phthalate	001, 004, 005-006, 007, 009, 011, 012, 013, 014, 015	--	µg/L	4
	001	1.33	lbs/day[2]	0.03
	004	0.85	lbs/day[2]	0.03
	005-006	0.06	lbs/day[2]	0.002
	007	0.07	lbs/day[2]	0.002
	009	0.07	lbs/day[2]	0.002
	011	0.09	lbs/day[2]	0.003
	012	0.4	lbs/day[2]	0.01
	013	3.11	lbs/day[2]	0.1
	014[3]	1.26	lbs/day[2]	0.03
	015[3]	2.92	lbs/day[2]	0.1
Cyanide	005-006, 008	--	µg/L	8.5
	005-006	0.06	lbs/day[2]	0.004
	008	0.02	lbs/day[2]	0.001
Thallium	005-006, 007, 011, 012, 015	--	µg/L	2
	005-006	0.06	lbs/day[2]	0.001
	007	0.07	lbs/day[2]	0.001
	011	0.09	lbs/day[2]	0.002
	012	0.4	lbs/day[2]	0.006
	015[3]	2.92	lbs/day[2]	0.05
Chronic Toxicity	All	--	Pass or Fail, % Effect	[7]

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[1] Instantaneous minimum and maximum range

[2] 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)

[3] Discharges from production areas Discharge Points 014 and 015 only occur when rainfall events cause an overflow of storm water runoff from a facility designed, constructed, operated, and maintained to contain all process wastewater plus all runoff from a 25-year, 24-hour rainfall event.

[4] The effluent limitations are based on the LA River Nutrients TMDL

[5] The single sample fecal coliform concentration shall not exceed 400/100ml and the geometric mean limit shall not exceed 200/100ml. The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

[6] The single sample E. coli concentration shall not exceed 235/100ml and the geometric mean limit shall not exceed 126/100ml. The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

[7] The maximum daily effluent limitation (MDEL) is exceeded when a toxicity result in a "fail", and the percent effect is greater than or equal to 0.50.

B. Land Discharge Specifications

The Discharger must develop and implement a Nutrient Management Plan (NMP) in accordance with the requirements specified in 40 C.F.R. sections 412.4(c) and 122.42(e) which are included in Attachment J of this Order. The NMP must specify the requirements which will be implemented if land application of the manure, litter, or process wastewater occurs.

C. Reclamation Specifications

Not applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

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

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

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

3. Water Contact Standards

a. State/Regional Water Board Water Non-Contact Water Standards:

In fresh water designated for water non-contact recreation (REC-2), the waste discharged shall not cause the following bacterial standards to be exceeded in the receiving water: Log mean limit of 2,000/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of samples collected during any 30-day period exceed 4,000/100 ml.

4. The dissolved oxygen content of all surface waters designated as WARM shall not be depressed below 5 mg/L as a result of waste discharges.

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

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

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

10. Accumulation of bottom deposits or aquatic growths.

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

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

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

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

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

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

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

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

19. Violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or

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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 of this Order.

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

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

e. 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.

f. 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.

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

h. 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.

i. 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.

j. 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.

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

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

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

n. Water Code section 13385 provides that any person who violates a waste discharge requirement or a provision of the Water Code is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day or $25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

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

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

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

q. The Discharger shall notify the Executive Officer in writing no later than six 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.

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

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

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

B. Monitoring and Reporting Program (MRP) Requirements

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

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C. Special Provisions

1. Reopener Provisions

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

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

c. This Order may be reopened and modified, in accordance with the provisions set forth in Parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new MLs.

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

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

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

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan. The Discharger shall submit to the Regional Water Board an Initial Investigation Toxicity Reduction Evaluation (TRE) workplan (1-2 pages) **within 90 days** of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity is detected, and should include at a minimum:

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

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

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

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b. Harbor Toxics TMDL Water Column and Sediment Monitoring for Responsible Parties in the Los Angeles River and Tributaries

As required in the Harbor Toxics TMDL, Los Angeles River Watershed responsible parties identified in the effective Los Angeles River Metals TMDLs are responsible for conducting water and sediment monitoring above the Los Angeles River Estuary to determine the River's contribution to the impairments in the Greater Harbor waters. The Discharger is a "responsible party" because it is an "Individual Industrial Permittee". As such, either individually or with a collaborating group, the Discharger shall develop a monitoring and reporting plan (Monitoring Plan) and quality assurance project plan (QAPP) for the water column, and sediment above the Los Angeles River Estuary. These plans shall follow the "TMDL Element - Monitoring Plan" provisions in Attachment A to Resolution No. R11-008. The TMDL requires that the Monitoring Plan and QAPP shall be submitted 20 months after the effective date (March 23, 2012) of the TMDL for public review and subsequent Executive Officer approval. Since the effective date of this Order exceeds the deadline for the Monitoring Plan and QAPP, the Discharger shall join a group already formed or develop a site specific monitoring plan. If the Discharger decides to develop a site specific Monitoring Plan, the Discharger shall notify the Regional Water Board within 90 days of the effective date of the Order and submit the plan to the Regional Water Board within 12 months of the effective date of the Order for public comment and the Regional Water Board review and approval. The Discharger shall begin monitoring 6 months after the Monitoring Plan is approved by the Executive Officer, unless otherwise directed by the Executive Officer. The compliance monitoring program shall include water column and sediment. The Discharger shall submit the annual monitoring report to the Regional Water Board by the specified date in the proposed Monitoring Plan.

The Compliance Monitoring Program shall include:

i. Water Column Monitoring

Water samples and total suspended solids samples shall be collected at, at least one site during two wet weather events and one dry weather event each year. The first large storm event of the season shall be included as one of the wet weather monitoring events. Water samples and total suspended solid samples shall be analyzed for metals, DDT, PCBs, and PAHs. Sampling shall be designed to collect sufficient volumes of suspended solids to allow for analysis of the listed pollutants in the bulk sediment.

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

ii. Sediment Monitoring

For sediment chemistry, sediment samples shall be collected at, at least one site every two years for analysis of general sediment quality constituents and the full chemical suite as specified in the State Water Quality Control Plan for Enclosed Bays and Estuaries-Part 1 Sediment Quality (SQO Part 1). All samples shall be collected in accordance with Surface Water Ambient Monitoring Program (SWAMP) protocols.

iii. Quality Assurance Project Plan

The Quality Assurance Project Plan (QAPP) shall describe the project objectives and organization, functional activities, and quality assurance/quality control protocols for the water and sediment monitoring. The QAPP shall include protocols for sample collection, standard analytical procedures, and laboratory certification. All samples shall be collected in accordance with SWAMP protocols. The details of the Harbor Toxics TMDL Water and Sediment Monitoring Plan including sampling locations and all methods shall be specified in the Monitoring Plans to be approved by the Executive Officer.

3. Best Management Practices and Pollution Prevention

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

i. An updated storm water pollution prevention plan (SWPPP) that clearly identifies CAFO and non-CAFO areas of the Facility and describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The updated SWPPP shall reflect current Facility conditions and incorporate changes in discharge practices (i.e., if the facility is re-designed such that storm water runoff storage basins alter the number of outfalls and discharge practices). The BMPs shall address the following specific areas of concern: chemical storage (i.e., fertilizers, dry chemicals, and used batteries) and vehicle wash and maintenance areas; racetrack dust control activities; horse manure storage and removal; and racetrack irrigation. The SWPPP shall be developed in accordance with the requirements in Attachment G.

ii. A Best Management Practice Plan (BMPP) that entails site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The BMPP shall be consistent with the general guidance contained in the U.S. EPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93- 004). In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters.

iii. Nutrient Management Plans (NMP)

An updated NMP which implements the requirements specified in 40 C.F.R. section 122.42(e) must be developed which addresses all operations covered by this permit. The elements required in the NMP are included in Attachment J.

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iv. Spill Contingency Plan (SCP)

An updated SCP that describes the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The SCP shall be reviewed at a minimum once per year and updated as needed. Any changes or revisions shall be summarized in the annual summary report.

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

The Discharger shall implement their SWPPP, BMPP, NMP and SCP within 10 days of the approval by the Executive Officer or no later than 90 days after submission to the Regional Water board, whichever comes first. The Discharger shall continue to implement any existing and previously approved SWPPP, NMP, BMPP, or SCP until an updated SWPPP,NMP, BMPP, or SCP is approved by the Executive Officer, or until the stipulated 90-day period after the updated SWPPP, NMP, BMPP, or SCP submittal has occurred. The plans shall be reviewed annually and at the same time. Updated information shall be submitted to the Regional Water Board within 30 days of revisions.

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4. Pollutant Minimization Program

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) to maintain effluent concentrations of cadmium, chromium III, chromium IV, copper, lead, mercury, nickel, selenium, zinc, pentachlorophenol and aldrin as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

i. A sample result is reported as DNQ and the effluent limitation is less than the RL; or

ii. A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

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

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

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

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

iv. An annual status report that shall be sent to the Regional Water Board in accordance with section X.C of the MRP (Attachment E) and include:

(a) All PMP monitoring results for the previous year;
(b) A list of potential sources of the reportable priority pollutant(s)—cadmium, chromium III, chromium IV, copper, lead, mercury, nickel, selenium, zinc, pentachlorophenol, and aldrin;
(c) A summary of all actions undertaken pursuant to the control strategy; and
(d) A description of actions to be taken in the following year.

5. 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.

6. Special Provisions for Municipal Facilities (POTWs Only)

Not applicable

7. Other Special Provisions

Not applicable

8. Compliance Schedules

Not applicable

T E N T A T I V E

VII. COMPLIANCE DETERMINATION

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

A. Single Constituent Effluent Limitation.

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

B. 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. Mass-based Effluent Limitations.

In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for “Not Detected” (ND) and the estimated concentration for “Detected,

but Not Quantified" (DNQ) for the calculation of the monthly average concentration. To be consistent with Limitations and Discharge Requirements, Section VII.B, if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

D. Multiple Sample Data.

When determining compliance with an Average Monthly Effluent Limitation (AMEL) or Maximum Daily Effluent Limitation (MDEL) for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "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. AMEL

If the average (or when applicable, the median determined by subsection D 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) in the samples estimated from the "Multiple Sample Data" section above will be used for compliance determination.

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

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

F. 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) 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 approach is:

Mean discharge IWC response ≤0.75 x 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) x 100%.

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 ≥ 0.50

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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. Bacterial Standards and Analyses

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

$$\text{Geometric Mean} = (C1 \times C2 \times \ldots \times Cn)1/n$$

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

Detection methods used for coliforms (total and fecal) and *Enterococcus* shall be those presented in Table 1A of part 136 (revised July 1, 2009), unless alternate methods have been approved by U.S. EPA pursuant to 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.

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

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

Concentrated Animal Feeding Operation (CAFO)
A concentrated animal feeding operation (CAFO) is an animal feeding operation (AFO) that confines animals for 45 days or more in a 12-month period.

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.

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

Effluent Concentration Allowance (ECA)
ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in 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 place for its current discharge that is or will be expanding, upgrading, or modifying its permitted discharge after the effective date of this Order).

Infeasible
Not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

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

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

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

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

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

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

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

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

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

Ocean Waters
The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

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

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative

priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

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

Reporting Level (RL)
RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

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

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

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

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

where:
x is the observed value;
μ is the arithmetic mean of the observed values; and
n is the number of samples.

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

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chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

ACRONYMS AND ABBREVIATIONS

AFO	Animal Feeding Operation
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
BMPPP	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
CAFO	Concentrated Animal Feeding Operation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	Los Angeles Turf Club, Inc.
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	Santa Anita Park
gpd	gallons per day
IC	Inhibition Coefficient
IC_{15}	Concentration at which the organism is 15% inhibited
IC_{25}	Concentration at which the organism is 25% inhibited
IC_{40}	Concentration at which the organism is 40% inhibited
IC_{50}	Concentration at which the organism is 50% inhibited
LA	Load Allocations
LOEC	Lowest Observed Effect Concentration
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MRP	Monitoring and Reporting Program
ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule
OAL	Office of Administrative Law

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

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ATTACHMENT B – AERIAL VIEW OF CAFO AND NON-CAFO AREAS

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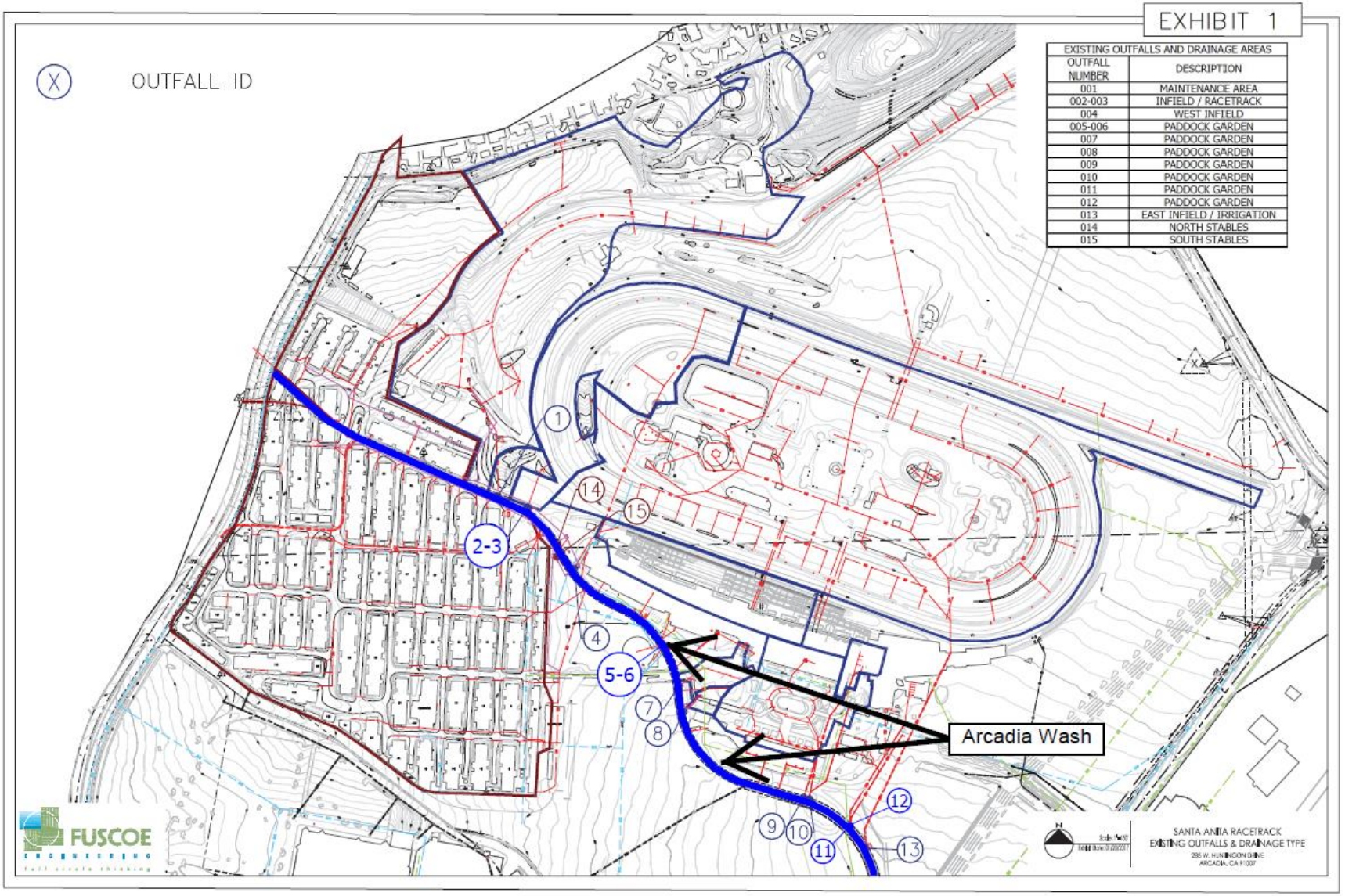
ATTACHMENT C-1 – EXISTING OUTFALLS AND DRAINAGE AREAS – SANTA ANITA PARK



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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 and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement (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 or sludge use or disposal 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).)

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F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (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

i. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility (40 C.F.R. § 122.41(m)(1)(i).).

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

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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)(i)(C).).

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, all notices must 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, all notices must 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, 40C.F.R. section 122.22, and 40 C.F.R. part 127 (40 C.F.R. § 122.41(m)(3)(ii).).

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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. § section 122.41(n)(3)(iv)).

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

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit (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 results must be conducted according to test procedures under40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. subchapters N or O. In the case of pollutants for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (40 C.F.R. §§ 122.41(j)(4), 122.44(i)(1)(iv).).

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

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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 or O 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, subchapters N or O, 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) 1 22.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time (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).).

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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.). The Discharger shall provide a report annually to the Regional Water Board as required in 40 C.F.R. § 144.42(e)(4).

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, and V.B.5 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).).

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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. If documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 are submitted electronically by or on behalf of the NPDES-regulated facility, any person providing the electronic signature for such documents shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure that all of the relevant requirements of 40 C.F.R. part 3 (including, in all cases, subpart D of 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).)

VI. 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 Board for reporting results of monitoring of sludge use or disposal practices (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. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (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)(5).).

VII. 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).).

VIII. TWENTY-FOUR HOUR REPORTING

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

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

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

   b. 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 under this provision 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).

IX. 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 not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).).
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan (40 C.F.R.§ 122.41(l)(1)(iii).).

X. ANTICIPATED NONCOMPLIANCE

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements(40 C.F.R. § 122.41(l)(2).).

XI. 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).).

XII. 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).).

XIII. INITIAL RECIPIENT FOR NPDES ELECTRONIC REPORTING DATA

The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in appendix A to 40 C.F.R. part 127) to the appropriate initial recipient, as determined by U.S. EPA, and as 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).)

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XIV. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

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

$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions ([40 C.F.R. 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 permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both (40 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)).

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XV. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

C. 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)).

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP NO. 8102)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 8102

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California laws and/or regulations.

I. GENERAL MONITORING PROVISIONS

A. Effluent sampling stations shall be established for the points of discharge as listed below and shall be located where representative samples of effluent (i.e., storm water) can be obtained**.**

Discharge Point	Latitude	Longitude
001	34.142º	-118.049º
002-003	34.140º	-118.048º
004	34.139º	-118.048º
005-006	34.139º	-118.046º
007	34.138º	-118.046º
008	34.138º	-118.046º
009	34.137º	-118.044º
010	34.137º	-118.044º
011	34.137º	-118.044º
012	34.137º	-118.044º
013	34.142º	-118.049º
014	34.142º	-118.049º
015	34.142º	-118.049º

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B. Samples from non-production areas shall be collected prior to the effluent being discharged.

C. In cases where allowable discharges from CAFO production areas occur (i.e., (a) storm water not commingled with process wastewater or b) process wastewater only in instances where a rainfall event causes an overflow of process wastewater from the facility designed, constructed, operated and maintained to contain all process wastewater plus the runoff from a 25-year, 24-hour duration rainfall event), the Discharger must collect effluent samples from production areas prior to the effluent entering the storm drain, as outlined in Section IV.B, below.

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

E. 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.

F. Laboratory Certification: Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (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.

G. 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.

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

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

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

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

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

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

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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.

J. 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 40 CFR Parts 122.44(i)(1)(iv); Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

K. 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 40 CFR Parts 122 and 136; Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting. 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).

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

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

   2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in Part 136 (revised 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.

L. 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.

M. Field analyses with short sample holding time such as pH, total residual chlorine, 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.

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

O. 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.

P. 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 is 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.

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

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

   If an analytical result is greater than the average monthly limit, the Discharger may collect additional samples at equal intervals during the calendar month in order to achieve compliance with the average monthly limit. All analytical results shall be reported in the monitoring report for that month.

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

1. Types of wastes and quantity of each type;

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

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

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

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

U. Laboratories. 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 Resources Control Board at the following address:

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

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
001	EFF-001	Location prior to discharge from Discharge Point 001 Latitude: 34.142º, Longitude: -118.049º
002-003	EFF-002/003	Location prior to discharge from Discharge Points 002/003 Latitude: 34.140º, Longitude: -118.048º
004	EFF-004	Location prior to discharge from Discharge Point 004 Latitude: 34.139º, Longitude: -118.048º
005-006	EFF-005/006	Location prior to discharge from Discharge Points 005/006 Latitude: 34.139º, Longitude: -118.046º
007	EFF-007	Location prior to discharge from Discharge Point 007 Latitude: 34.138º, Longitude: -118.046º
008	EFF-008	Location prior to discharge from Discharge Point 008 Latitude: 34.138º, Longitude: -118.046º
009	EFF-009	Location prior to discharge from Discharge Point 009 Latitude: 34.137º, Longitude: -118.044º
010	EFF-010	Location prior to discharge from Discharge Point 010 Latitude: 34.137º, Longitude: -118.044º

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Discharge Point Name	Monitoring Location Name	Monitoring Location
011	EFF-011	Location prior to discharge from Discharge Point 011 Latitude: 34.137º, Longitude: -118.044º
012	EFF-004	Location prior to discharge from Discharge Point 012 Latitude: 34.137º, Longitude: -118.044º
013	EFF-013	Location prior to discharge from Discharge Point 013 Latitude: 34.136º, Longitude: -118.044º
014	EFF-014	Location prior to discharge from Discharge Point 014 Latitude: 34.140º, Longitude: -118.048º
015	EFF-015	Location prior to discharge from Discharge Point 015 Latitude: 34.140º, Longitude: -118.048º
--	RSW-001	Location in Arcadia Wash 50 feet above the most upstream discharge point
--	RSW-002	Location in Arcadia Wash 50 feet below the most downstream discharge point
--	RSW-003	The Los Angeles County Department of Public Works' Willow Street Gauge Station at Wardlow (F319-R)[1]

[1] The stream flow data can be obtained by contacting LACDPW 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.

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III. INFLUENT MONITORING REQUIREMENTS

Not Applicable

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations EFF-001, EFF-002 – 003, EFF-004, EFF-005 – 006, E007, E008, EFF-009, EFF-010, EFF-011, EFF-012, EFF-013, EFF-014, EFF-015

1. The Discharger shall monitor flows prior to discharge through the outfalls as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding minimum level.

Table E-2. Effluent Monitoring at Monitoring Locations EFF-001 through EFF-015

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Model Estimated	1/Discharge Event [1]	[3]
Temperature	°F	Grab	1/Discharge Event [4]	[3]
pH	s.u.	Grab	1/Discharge Event [4]	[3]
$BOD_5 20^oC$[2]	mg/L	Grab	1/Discharge Event [4]	[3]
Oil and Grease[2]	mg/L	Grab	1/Discharge Event [4]	[3]
Fecal Coliform	MPN/100 ml	Grab	1/Discharge Event [4]	[3]
E coli	MPN/100 ml	Grab	1/Discharge Event [4]	[3]
Phosphorus[2]	mg/L	Grab	1/Discharge Event [4]	[3]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Nitrate+Nitrite as N[2]	mg/L	Grab	1/Discharge Event [4]	[3]
Ammonia[2]	mg/L	Grab	1/Discharge Event [4]	[3]
TDS	mg/L	Grab	1/Discharge Event [4]	[3]
TSS[2]	mg/L	Grab	1/Discharge Event [4]	[3]
Settleable Solids	ml/L	Grab	1/Discharge Event [4]	[3]
Antimony	µg/L	Grab	1/Discharge Event [4]	[3]
Arsenic	µg/L	Grab	1/Discharge Event [4]	[3]
Beryllium	µg/L	Grab	1/Discharge Event [4]	[3]
Cadmium, Total Recoverable[2]	µg/L	Grab	1/Discharge Event [4]	[3]
Chromium (III), Total Recoverable[2]	µg/L	Grab	1/Discharge Event [4]	[3]
Chromium (VI) [2]	µg/L	Grab	1/Discharge Event [4]	[3]
Cadmium, Total Recoverable[2]	µg/L	Grab	1/Discharge Event [4]	[3]
Copper, Total Recoverable[2]	µg/L	Grab	1/Discharge Event [4]	[3]
Lead, Total Recoverable[2]	µg/L	Grab	1/Discharge Event [4]	[3]
Mercury, Total Recoverable[2]	µg/L	Grab	1/Discharge Event [4]	[3]
Nickel, Total Recoverable[2]	µg/L	Grab	1/Discharge Event [4]	[3]
Selenium, Total Recoverable[2]	µg/L	Grab	1/Discharge Event [4]	[3]
Zinc, Total Recoverable[2]	µg/L	Grab	1/Discharge Event [4]	[3]
Cyanide	µg/L	Grab	1/Discharge Event [4]	[3]
Bis(2-ethylhexyl)phthalate	µg/L	Grab	1/Discharge Event [4]	[3]
Priority Pollutants [6]	µg/L	Grab	1/Year	[3]
TCDD Equivalents [7]	µg/L	Grab	1/Year	[3]
Chronic Toxicity [5,8]	Pass or Fail, % Effect	Grab	1/Year	[3]

[1] A storm event is rainfall that generates greater than 0.1 inches of rainfall in a 24-hour period. During periods of storm water discharge, samples shall be collected during the first hour of the discharge or at the first safe opportunity. If sampling is delayed, the reason for the delay must be included in the report. No more than one sample per week (7 days) need be obtained. A new storm event must be preceded by at least 72 hours of dry weather. Each separate period of storm water shall be sampled.

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

M = 8.34 x Ce x Q

where: M = mass discharge for a pollutant, lbs/day
Ce = Reported concentration for a pollutant in mg/L
Q = actual discharge flow or best estimated rate (MGD).

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[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 minimum levels (MLs) specified in Attachment 4 of the SIP. Where no methods are specified for a given pollutant, methods shall be approved by this Regional Water Board or the State Water Board.

[4] During periods of storm water discharge, samples shall be collected during the first hour of the discharge or at the first safe opportunity. Each separate storm water discharge shall be sampled, but no more than one sample per week or seven days is required.

[5] See Section V. Whole Effluent Toxicity Requirements.

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

[7] TCDD refers to 2,3,7,8-tetrachlorodibenzodioxin. TCDD equivalents includes TCDD and fifteen congeners of dioxins and furans that exhibit toxic effects similar to those of TCDD. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), and toxicity equivalency factors (TEFs), are as provided in the table below. The Discharger shall monitor and report all measured values of the individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD Equivalents) = $\Sigma(C_x \times TEF_x)$
where:
C_x = concentration
TEF_x = TEF for congener x

Congeners	Minimum Levels (pg/L)	Toxicity Equivalency 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

[8.] Refer to Section V, Whole Effluent Toxicity Testing Requirements. “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL)

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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 Organism* (EPA/821/R-02/013, 2002). In no case shall these species and methods be substituted with another test species unless written authorization from the Regional Water board Executive Officer is received.

a. A static renewal toxicity test with the fathead minnow, *Pimephals 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 capricomutum* (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 referenced. The sample shall also be analyzed for the parameters required for the discharge. The species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine 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 as to what species is the most

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sensitive, 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 previously 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 retest as soon as possible.

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. Reference toxicant test 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 (1-2 pages) 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.

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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 (TIE) and Toxicity Reduction Evaluation Process**

a. 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 1 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 1 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 toxicity test results for the TST statistical approach, reported as "Pass" or "Fair and "Percent Effect" at the chronic toxicity IWC for the discharge.

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

c. 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.

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

VI. LAND DISCHARGE MONITORING REQUIREMENTS

Not Applicable

VII. RECLAMATION MONITORING REQUIREMENTS

Not Applicable

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Monitoring Location RSW-001 (Upstream) and RSW-002 (Downstream)

1. The Discharger shall monitor Arcadia Wash at RSW-001 as follows:

Table E-3. Receiving Water Monitoring Requirements – RSW-001 and RSW-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	s.u.	Grab	1/Year	[1, 2]
Hardness	mg/L	Grab	1/Year	[1, 2]
Temperature	°F	Grab	1/Year	[1, 2]
Fecal Coliform	MPN/100 mL	Grab	1/Year	[1, 2]
E coli	MPN/100 mL	Grab	1/Year	[1, 2]
Nitrate + Nitrite as N	mg/L	Grab	1/Year	[1, 2]
Ammonia	mg/L	Grab	1/Year	[1, 2]
Phosphorus	mg/L	Grab	1/Year	[1, 2]
TDS	mg/L	Grab	1/Year	[1, 2]
Priority Pollutants[3]	µg/L	Grab	1/Year	[1, 2]
TCDD Equivalents[4]	µg/L	Grab	1/Year	[1, 2]

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

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this Regional Water Board or the State Water Board.

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

[3] Priority Pollutants as defined by the California Toxics Rule (CTR) and in Attachment I to this Order. Annual samples shall be collected during the discharge from the first storm event of the wet season (October 1 – May 30).

[4] TCDD refers to 2,3,7,8-tetrachlorodibenzodioxin. TCDD equivalents includes TCDD and fifteen congeners of dioxins and furans that exhibit toxic effects similar to those of TCDD. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), and toxicity equivalency factors (TEFs), are as provided in the table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

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

where:

C_x = concentration of, dioxin or furan congener x

TEF_x = TEF for congener x C_x = concentration of, dioxin or furan congener x

TCDD Congeners, Minimum Levels, and Toxicity Equivalency Factors

Congeners	Minimum Levels (pg/L)	Toxicity EquivalencyFactor (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

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B. Monitoring Location RSW-003

Discharger shall report the maximum daily flow in the Los Angeles River, at the Los Angeles County Department of Public Works' Willow Street Gage Station at Wardlow. This station is designated as RSW-003 in this Order. The stream flow data can be obtained by contacting LACDPW 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. This information is necessary to determine the wet weather and dry weather condition of the river, as defined in the Los Angeles River Metals TMDL. If the gauging station is not operational, an estimated maximum daily flow may be submitted.

C. Harbor Toxics TMDL Monitoring Requirements.

The Harbor Toxics TMDL requires the responsible parties identified in the metals TMDLs for Los Angeles River to conduct water and sediment monitoring above the Los Angeles River Estuary to determine the river's contribution to the impairments in the Greater Harbor waters. The Discharger is identified as a responsible party in the metals TMDL for the Los Angeles River. Although WLAs are not assigned to the Los Angeles River Watershed Responsible Parties, the Harbor Toxics TMDL does require these parties to develop and implement a monitoring plan and submit annual reports regarding implementation. In this permit, the Permitttee is required to comply with the terms of the TMDL. As specified in section VI.C.2.b of the Order, the Discharger shall join a group already formed or develop a site specific monitoring plan. That section also includes the requirements for the monitoring plan.

IX. OTHER MONITORING REQUIREMENTS

A. Storm Water Monitoring

1. **Rainfall Monitoring.** The Discharger shall measure and record the rainfall on each day of the month. This information shall be included in the monitoring report for that quarter.

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

B. Recordkeeping and Inspection Requirements – CAFO Requirements

1. A copy of the Facility's Nutrient Management Plan (Attachment J) must be maintained on-site and made available upon request.

2. The Discharger is required to inspect Outfalls 014 and 015 once per 2 weeks to confirm that dry weather discharges are not occurring from the CAFO production areas.

3. The Discharger is required to inspect all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water weekly. Any deficiency shall be corrected as soon as possible. Upgrades or modifications must be reported in the quarterly Self Monitoring Reports.

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4. The Discharger shall inspect all manure, litter and process wastewater storage facilities weekly to confirm that waste discharges are not occurring.

5. At least twice during the dry season (May through September), the Discharger is required to observe and/or test for the presence of non-storm water discharges at all storm water discharge locations in the non-production areas. At a minimum, a visual inspection shall be conducted to determine the presence of stains, odors, debris, or other conditions that might indicate a discharge.

6. The Discharger must conduct wet season (October through April) observations of all storm water locations in the non-production areas during the first hour of the first storm event of the wet season that produces significant storm water discharge (continuous discharge of storm water for one hour or more) to observe the presence of floating and suspended materials, discolorations, turbidity, odor, etc.

7. A permanent log shall be maintained for the inspections required in sections IX.B.1 through 6 of this section and for the waste bedding material hauled off-site.

8. Report any event (e.g. overflows, spills, leaks) during the year that could contribute to storm water runoff in the production areas and modify the sampling plan for the most probable constituents expected.

9. The Discharger is required to measure and record the rainfall each day of the month.

10. The Discharger must maintain on-site for a period of 5 years from the date they are created all records required by this Order to include:

a. Records documenting all inspections;

b. Weekly records of depth of manure and process wastewater as indicated by a depth marker, where appropriate;

c. Rainfall records;

d. Records documenting any actions taken to correct deficiencies found during inspections of the CAFO facility;

e. Mortalities must be handled in such a way as to prevent the discharge of pollutants to surface water and records of mortalities management must be maintained;

f. Records documenting the current design of any manure or litter storage structures, including volumes for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity;

g. Records of the date, time and estimated volume of any overflow of process wastewater to surface waters; and

h. Records of the date, recipient name, and address, and approximate amount of manure litter, and process wastewater transferred to another person.

11. Prior to transferring manure, litter, or process wastewater to other persons, the Discharger must provide the recipient with the most current nutrient analysis and this analysis must be consistent with the requirements in 40 C.F.R. part 412.

C. SWPPP, BMPP, NMP and SCP Status and Effectiveness Report

1. As required under Special Provision VI.C.3 of this Order, the Discharger shall submit an updated SWPPP, BMPP, NMP and SCP to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit.

Annually the Discharger shall report the status of the implementation and the effectiveness of the SWPPP, BMPP, SCP and NMP required under Special Provision VI.C.3 of this Order. The SWPPP, BMPP, SCP, and NMP Status and Effectiveness shall be reviewed at a minimum once per year and updated as needed to ensure all actual or potential sources of pollutants in wastewater and storm water discharged from the Facility are addressed in the SWPPP, BMPP, SCP and NMP Status and Effectiveness Report. All changes or revisions to the SWPPP, BMPs, and NMP Status will be summarized in the annual report required under Attachment E, Monitoring and Reporting, Section X.D.

X. REPORTING REQUIREMENTS

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A. General Monitoring and Reporting Requirements

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

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

3. Each monitoring report shall contain a separate section titled “Summary of Non-Compliance” which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

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

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

6. 40 C.F.R. § 122.42(e)(4), the Discharger must submit an annual report to include:

a. The number of horses, whether in open confinement or housed under roof;

b. Estimated amount of total manure, litter and process wastewater generated by the CAFO in the previous 12 months (tons/gallons);

c. Estimated amount of total manure, litter and process wastewater transferred to other persons by the CAFO in the previous 12 months (tons/gallons);

d. Total number of acres for land application covered by the nutrient management plan, if applicable;

e. Total number of acres under control of the CAFO that were used for land application of manure, litter and process wastewater in the previous 12 months;

f. Summary of all manure, litter and process wastewater discharges from the production area that have occurred in the previous 12 months, including date, time, and approximate volume;

g. A statement indicating whether the current version of the CAFO's NMP was developed or approved by a certified nutrient management planner.

Certain requirements (i.e., d, e, g) might not be applicable if the Facility does not land apply manure, litter or process wastewater. If the Facility does not land apply, the Discharger shall include a certification stating that manure, litter and/or process wastewater has not been land applied at the Facility.

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 Web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site 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 and annual SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-4. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
1/ Discharge Event	August 1, 2018	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1 / Year	August 1, 2018	January 1 through December 31	February 1

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

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

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

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" ("Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected" (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 and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

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

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

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

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

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

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

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

C. Discharge Monitoring Reports (DMRs)

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

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 Work Plan

b. Updated SWPPP and BMPP

c. Updated NMP

d. Updated SCP

e. Pollutant Minimization Plan (PMP)

The SWPPP, BMPP, NMP, and Spill Contingency Plan status shall be reviewed at a minimum once per year and updated as needed to ensure all actual or potential sources of pollutants in wastewater and storm water discharged from the facility are addressed. All changes or revisions to the SWPPP, BMPP, and Spill Contingency Plan shall be submitted to the Regional Water Board within 30 days of revisions.

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ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

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

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

WDID	4B191319001
Discharger	Santa Anita Land Holdings, LLC & Los Angeles Turf Club, Inc.
Name of Facility	Santa Anita Park
Facility Address	285 West Huntington Drive
	Arcadia, CA 91007
	Los Angeles County
Facility Contact, Title and Phone	Frank De Marco, Jr., Vice President (626) 574-6304
Authorized Person to Sign and Submit Reports	Same
Mailing Address	P.O. Box 60014, Arcadia, CA 91066
Billing Address	Same
Type of Facility	CAFO
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	C
Pretreatment Program	Not applicable
Reclamation Requirements	Not applicable
Facility Permitted Flow	10.64 million gallons per day (MGD)
Facility Design Flow	Not applicable
Watershed	Los Angeles River
Receiving Water	Arcadia Wash
Receiving Water Type	Inland surface water

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A. Santa Anita Land Holdings, LLC owns the Los Angeles Turf Club, Inc. (together hereinafter Discharger) and operates the Santa Anita Park (hereinafter Facility), a horse stabling, training, and racing facility located at 285 West Huntington Drive, Arcadia, CA.

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 from Non-CAFO and CAFO areas to Arcadia Wash**,** a water of the United States, and is currently regulated by Order R4-2006-0081 which was adopted on November 9, 2006. The order expired on October 10, 2011. Attachment B provides a map of the area around the Facility. Attachment C-1 provides a map of the CAFO and non-CAFO areas and shows the Outfall locations of the Facility.

C. The Discharger filed a report of waste discharge (ROWD) and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on March 14, 2011. Supplemental information was requested on June 2, 2011 and received on June 7, 2011. A site visit was conducted on September 11, 2017, to observe operations and collect additional data to develop permit limitations and conditions. The Discharger has submitted a number of modification plans for the CAFO area, which have changed over the years. A final revised ROWD was submitted on January 19, 2018, with new facility modification plans that are scheduled to be implemented within next 10 years.

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, including submission of a ROWD.

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II. FACILITY DESCRIPTION

Santa Anita Park is a 127-acre horse stabling, training and racing facility at 285 West Huntington Drive, Arcadia, California. Based on information provided with the ROWD, the Concentrated Animal Feeding Operations (CAFO) area regulated under this permit is approximately 46 acres and includes a housing area for up to 2,000 horses in 80 stables and a manure management area. The Non-CAFO area includes a racetrack, infield, grandstands, maintenance yard, and paddock gardens (small circular viewing areas where jockeys mount horses prior to a race).

A. Description of Wastewater Treatment or Controls

1. Facility Classification

Pursuant to the definitions found in federal regulations at title 40 Code of Federal Regulations[1] section 122.23 (NPDES Permit Regulations) Part 412, Subpart A—Horses and Sheep, (Effluent Limitation Guidelines [ELGs] and Standards for CAFO) the stable portions of Santa Anita are subject to the regulatory requirements for CAFOs. Santa Anita is classified as a large CAFO because Santa Anita confines more than 500 horses for 45 days or more in a 12-month period. Further, the facility is also a confined animal facility (CAF) pursuant to California Code of Regulations, Title 27, section 20164 because the stables confine horses that do not graze. Non-CAFO areas include the racetrack, grandstands, decorative fountains, paddock gardens, and parking lots.

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

The CAFO NPDES and ELGs were revised on February 12, 2003 and became effective on April 14, 2003. The revised regulations clarify the definition of areas subject to the regulatory requirements and establish limitations for large CAFOs, including horse facilities. The revisions are the basis for the requirements established in this Order.

Shortly after the U.S. Environmental Protection Agency (U.S. EPA) published its final Clean Water Act (CWA) CAFO Rule in February 2003, a number of agricultural (American Farm Bureau Federation, the National Chicken Council and the National Pork Producers Council) and environmental organizations (the Waterkeeper Alliance, the Sierra Club and the National Resources Defense Council) separately appealed several aspects of the rule. The appeals were consolidated into one case (*Waterkeeper Alliance, Inc. v. U.S. EPA*) which was heard in the 2nd Circuit on December 13, 2004. While the court denied many aspects against the petitioners, some of the court decisions have an impact on the permits issued to CAFO facilities. The following provisions were applicable:

- Failure to Regulate – The CAFO Rule was found unlawful because it allowed NPDES permitting authorities to issue permits to large CAFOs in the absence of any meaningful review of the Nutrient Management Plans (NMP) those CAFOs have developed. The court ruling required regulatory oversight of NMPs and an opportunity for public review and comments.

- Technology-Based Effluent Limitation Guidelines – The CAFO Rule was found to be unlawful because it failed to require the terms of NMPs to be included in NPDES permits. NMPs were determined to be "technology-based Effluent Limitation Guidelines" (BAT) and are required to be made available for public review.

- Duty to Apply – The court ruled that unless there is a "discharge of any pollutant" there cannot be a requirement to obtain a permit. The U.S. EPA can only regulate actual and proposed discharges, not potential discharges.

- Discharges Subject to Regulation – The court upheld the requirement that runoff from land application areas is part of a CAFOs point source discharge and is subject to regulation even if the runoff is not channelized.

U.S. EPA published proposed rules in June 2006 and March 2008 describing how the Agency addressed the court's decision in the *Waterkeeper* case. Under the ruling, all CAFOs were to apply for permits and develop nutrient management plans

2. Description of Waste Discharge

According to the Discharger's ROWD, the Discharger is proposing to implement a storm water management best management practice (BMP) project which will detain and reuse storm water runoff from a 25-year, 24-hour storm event in the CAFO and non-CAFO areas; eliminate dry weather flows; and minimize outfalls.

Dry weather process wastewater discharges have been eliminated. CAFO horse wash areas, vehicle wash areas, and fountains from non-CAFO areas are all connected to the sanitary sewer.

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In the CAFO areas, the first 0.1-inch of storm water is diverted to the sanitary sewer system via a small pump. A larger pump conveys storm water in excess of the 0.1-inch to two holding tanks in the stables area. Storm water runoff in excess of the two holding tanks' capacity (44,000 gallons total) overflows to the Arcadia Wash through Discharge Points 014 and 015 at the North and South Diversion Structures. Water in the holding tanks is then manually discharged through a 2-inch discharge pipe back to the South Lift Station and discharged to the sanitary sewer 24 hours after the end of the rain event.

In non-CAFO areas, all wet weather flows discharge directly to the Arcadia Wash through Discharge Points 001, 002-003, 004, 005-006, 007, 008, 009, 010, 011. 012, and 013, with the exception of the flow through Discharge Point 004. The first 0.02-inches of storm water runoff from Discharge Point 004 is pumped to the North Diversion Structure, where it is pumped to the sanitary sewer system.

3. Existing Structural Best Management Practices (BMPs)

Santa Anita currently implements the following BMPs:

- Stores all contaminated bedding materials, feed, and manure in covered bunkers
- Limits horses to covered production areas during rain events
- Implementation of Manure Management Plan – manure and used bedding materials are hauled off daily to local mushroom farms and licensed compost facilities
- Hydrodynamic separator at Outfall 013 used to take out solids
- Computerized irrigation and moisture control to minimize runoff and fertilizer application
- Daily dust control to minimize sediment loss
- Use of self-contained floor washers for paved areas.

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B. Discharge Points and Receiving Waters

The Santa Anita storm drain system within the stable and animal show areas consists of catch basins, curb inlets, unlined and concrete lined ditches and channels, surface drains, and underground storm water pipes that collect surface water runoff from paved and unpaved areas. Runoff collected by this system is conveyed to a storm drain that discharges into Arcadia Wash through thirteen outfall structures. Arcadia Wash is tributary to the Rio Hondo which drains to the Los Angeles River, both waters of the United States.

a. Proposed Outfall Changes

Storm water is discharged from all the outfalls. Based on historical monitoring data (shown in Table F-2) all the Outfalls had high fecal coliform and enterococcus values. The areas that previously discharged to Outfalls 002 and 003 have been combined into one discharge outfall. Outfalls 005 and 006 have been combined into one discharge outfall.

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

The monitoring data collected as per Order R4-2006-0081 are presented in the following table. There were no effluent limitations included in that Order, therefore no effluent violations were reported

Table F-2. Historic Monitoring Data

Parameter	Unit	Range of Reported Values (Monitoring Period from December 2006 to March 2017						
		001	002[1]	004	005[1]	006[1]	007[1]	008
pH	S.U.	3.13 – 8.13	6.2 – 8.41	6.88 – 9.3	3.46 – 8.16	4.3 – 8.83	8.4 – 8.91	4.6 – 8.6
Oil & Grease	mg/L	5 – 36	10 – 15	6 – 14.6	All ND	ND – 5	0.16 – 5	8 – 89
BOD	mg/L	4 – 338	14 – 523	6 – 141	ND – 23	7 – 14	8 – 18	12 – 645
Fecal Coliform	MPN/ 100 mL	170 – 160000	1600 – 160000	500 – 160000	8 – 800	4 – 900	10 – 3400	800 – 160000
Enterococcus	MPN/ 100 mL	3 – 98040	1 – 241920	2 – 46110	1 – 900	2 – 1440	28 – 241920	520 – 14470
Total Coliform	MPN/ 100 mL	1600 – 160000	1600 – 160000	2 – 160000	23 – 5000	17 – 3800	350 – 30000	22000 – 160000
Phosphorus	mg/L	0.082 – 2.06	0.027 – 1.54	0.043 – 6.7	0.03 – 0.232	0.04 – 4.11	0.033 – 4.11	0.036 – 2.8
Nitrate+Nitrite as N	mg/L	0.0026 – 8.39	0.00072 – 9.2	0.86 – 9780	0.25 – 710	0.11 – 1120	0.25 – 990	3.1 – 620
Ammonia	mg/L	0.06 – 5.59	0.08 – 0.65	0.04 – 1.05	0.14 – 0.51	0.1 – 0.57	0.1 – 244	0.2 – 1.04
TDS	mg/L	6 – 490	8 – 1880	21 – 3326	14 – 1050	14 – 96	12 – 1780	8 – 534
TSS	mg/L	0.1 – 4300	22 – 8200	0.34 – 13100	19 – 49	5 – 24	11 – 74	242 – 1596
Settleable Solids	ml/L	0.3 – 10	0.1 – 1.5	0.19 – 26	ND – 0.2	ND – 0.2	0.1 – 1	0.5 – 11
MBAS	mg/L	0.088 – 0.94	0.062 – 12.1	0.059 – 3.7	0.07 – 0.29	0.1 – 0.16	0.072 – 0.22	0.25 – 2.3
Acute Toxicity	% survival	90 – 100	10 – 90	2 – 100	5 – 90	80 – 100	80 – 100	80 – 90
Antimony	µg/L	1.49 – 2.7	0.472 – 1.45	0.432 – 470	0.533 – 1.43	0.704 – 0.908	0.063 – 1.11	0.503 – 2.2
Arsenic	µg/L	0.9 – 21	4.14 – 60	0.52 – 69	0.354 – 69	0.3 – 2.5	0.596 – 32.3	3.7 – 11
Beryllium	µg/L	0.097 – 0.3	1.82 – 1.83	0.2 – 10	All ND	ND – 0.136	ND – 7.94	0.2 – 0.8
Cadmium	µg/L	0.138 – 0.5	0.085 – 3	0.047 – 5	0.087 – 4	0.09 – 0.176	0.269 – 1.82	0.085 – 0.9
Chromium (III)	µg/L	1.15 – 62	4.3 – 295	3.1 – 831	1.3 – 879	0.6 – 7	3.3 – 545	1 – 45
Chromium (VI)	µg/L	0.641 – 45.8	0.12 – 111	1.03 – 174	2.46 – 878	1.03 – 1.8	3.58 – 545	All ND
Copper	µg/L	6.11 – 85	12.6 – 156	4.54 – 543	5.11 – 250	2.29 – 35	4.2 – 378	12.6 – 99
Lead	µg/L	0.938 – 15.2	0.737 – 113	1.4 – 138	1.42 – 117	0.717 – 7	1.3 – 109	0.737 – 36
Mercury	µg/L	0.04 – 0.19	0.07 – 0.52	0.17 – 0.68	0.07 – 0.49	0.07 – 0.13	0.09 – 0.35	All ND
Nickel	µg/L	1.4 – 24	1.44 – 113	1.79 – 281	1.24 – 143	0.5 – 8.64	1 – 200	1.44 – 33

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Parameter	Unit	Range of Reported Values (Monitoring Period from December 2006 to March 2017						
		001	002[1]	004	005[1]	006[1]	007[1]	008
Selenium	µg/L	0.417 – 3	0.758 – 39	0.765 – 20	All ND	ND – 12	4.23 – 10	ND – 2
Silver	µg/L	0.129 – 0.2	0.067 – 0.286	0.332 – 7	ND – 5	ND – 4	1.22 – 4	ND – 0.3
Thallium	µg/L	0.041 – 0.339	0.297 – 0.416	0.086 – 4	0.03 – 0.068	0.047 – 10	0.025 – 10	ND – 0.3
Zinc	µg/L	81 – 2220	120 – 1490	59.2 – 1490	178 – 2800	53.3 – 632	77 – 1230	564 – 5100
Butylbenzyl Phthalate	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Diethyl Phthalate	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Di-n-Octyl Phthalate	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Pentachloro-phenol	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Bis(2-Ethylhexyl) Phthalate	µg/L	ND – 6.5	All ND	ND - 7	ND – 6.8	All ND	ND – 7.9	All ND
Aldrin	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Alpha BHC	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Beta BHC	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND

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Parameter	Unit	Range of Reported Values (Monitoring Period from December 2006 to March 2017						
		009	010	011	012	013	014	015
pH	S.U.	3.9 – 8.32	6.4 – 9.4	5.8 – 8.4	5.5 – 9.2	6.9 – 9.22	6.4 – 8.96	4.1 – 8.84
Oil & Grease	mg/L	All ND	7 – 29	All ND	ND – 12	5 – 6.8	8.6 – 13	5.4 – 15
BOD	mg/L	4 – 29	5 – 116	ND – 9	10 – 19	6 – 282	12 – 230	15 – 346
Fecal Coliform	MPN/ 100 mL	900 – 11000	2 – 90000	8 – 900000	20 – 160000	23 – 90000	900 – 160000	1600 – 500000
Enterococcus	MPN/ 100 mL	43.2 – 9830	18.5 – 64880	7 – 4190	1 – 241920	109.5 – 98040	9.7 – 241920	1222 – 77010
Total Coliform	MPN/ 100 mL	1600 – 160000	2 – 160000	8 – 901299.6	1600 – 240000	23 – 90000	1600 – 160000	1600 – 160000
Phosphorus	mg/L	0.04 – 0.82	0.07 – 1.11	0.03 – 0.17	0.02 – 0.32	0.144 – 16.7	0.146 – 3.73	0.162 – 4.22
Nitrate+Nitrite as N	mg/L	0.6 – 12450	2.06 – 2250	0.87 – 3520	0.25 – 2440	1.51 – 13300	0.47 – 26700	0.9 – 4960
Ammonia	mg/L	0.05 – 1.58	0.11 – 1.13	0.05 – 1010	0.1 – 2.17	0.04 – 1.54	0.04 – 440	0.04 – 2.68
TDS	mg/L	6 – 256	10 – 248	8 – 174	12 – 152	38 – 3030	8 – 784	18 – 644
TSS	mg/L	10 – 2317	36 – 2317	5 – 69	11 – 119	0.76 – 41800	0.53 – 41800	0.67 – 3280
Settleable Solids	ml/L	0.01 – 1	0.1 – 1	ND – 0.3	ND – 0.1	0.1 – 250	0.4 – 7	0.2 – 7
MBAS	mg/L	0.08 – 0.26	0.2 – 0.79	0.05 – 0.18	0.14 – 2.05	0.07 – 1.51	0.05 – 0.45	0.07 – 0.45
Acute Toxicity	% survival	8 – 90	90 – 100	28 – 100	87 – 100	80 – 100	80 – 97	63 – 100
Antimony	µg/L	0.509 – 2.7	1.3 – 3.1	0.767 – 1.6	3 – 55.4	0.842 – 3.2	0.921 – 2	0.852 – 2.3
Arsenic	µg/L	0.9 – 11.9	0.6 – 6.5	0.3 – 1.5	0.5 – 5.6	4.1 – 83	5.3 – 60	6.7 – 30
Beryllium	µg/L	All ND	ND – 0.5	All ND	All ND	0.8 – 14	0.2 – 2.3	0.3 – 2.3
Cadmium	µg/L	0.4 – 0.464	0.078 – 0.8	0.141 – 0.4	0.097 – 0.5	0.5 – 8	0.2 – 2	0.326 – 2.8
Chromium (III)	µg/L	1 – 100	1.4 – 27	0.7 – 1.6	1.1 – 4.2	2.8 – 1020	14 – 480	23 – 160
Chromium (VI)	µg/L	All ND	0.14 – 0.74	ND – 0.08	ND – 1.24	0.44 – 68.17	ND – 489	ND – 495
Copper	µg/L	8.7 – 91	6.23 – 93	5.9 – 51	4 – 20	34 – 529	35 – 200	44.3 – 310
Lead	µg/L	3 – 32.5	2.64 – 25	1.81 – 14	0.9 – 11	1 – 200	4.1 – 65	14 – 110
Mercury	µg/L	0.06 – 0.16	ND – 0.29	ND – 0.19	ND – 0.16	0.24 – 0.27	0.04 – 0.68	0.21 – 0.31
Nickel	µg/L	0.7 – 34.4	1.3 – 20	0.8 – 4.3	0.9 – 7	14 – 211	12 – 184	16 – 120
Selenium	µg/L	ND – 0.765	All ND	ND – 10	ND – 9	1.28 – 12	0.988 – 10	0.603 – 2.7

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Parameter	Unit	Range of Reported Values (Monitoring Period from December 2006 to March 2017						
		009	010	011	012	013	014	015
Silver	µg/L	ND – 0.177	ND – 0.2	All ND	All ND	0.379 – 1.3	0.2 – 7	0.107 – 0.7
Thallium	µg/L	0.451 – 0.8	ND – 0.429	0.025 – 7	ND – 9	0.2 – 2.6	0.377 – 4	0.2 – 9
Zinc	µg/L	93 – 990	66 – 440	130 – 500	37 – 150	84 – 1320	97 – 940	220 – 1400
Butylbenzyl Phthalate	µg/L	All ND	All ND	All ND	ND – 3.3	All ND	All ND	All ND
Diethyl Phthalate	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Di-n-Octyl Phthalate	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Pentachloro-phenol	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Bis(2-Ethylhexyl) Phthalate	µg/L	ND – 7.9	All ND	ND – 6.3	ND – 6.6	ND – 18	ND – 7	ND – 7.2
Aldrin	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Alpha BHC	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND
Beta BHC	µg/L	All ND	All ND	All ND	All ND	All ND	All ND	All ND

[1] For Discharge Points 002, 005, 006, and 007, one data point was available for many parameters; therefore, a single value is listed in Table F-2.

[2] ND = Non-detect value was reported.

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D. Compliance Summary

No enforcement actions were issued to the Santa Anita Park facility during the previous permit term.

E. Planned Changes

1. PROPOSED CAFO IMPROVEMENTS

The purpose of the proposed CAFO improvements is to comply with the CAFO storm water regulations for the existing stable area (including but not limited to 40 C.F.R. sections 122.42(e), 412.12 and 412.13). In particular, 40 C.F.R. section 412.13 requires the retention of overflow of process wastewater up to a 25-year, 24-hour rainfall event for all horse production areas within the Santa Anita Park. Production areas include the existing stable area where horses are permanently sheltered and all dirt pathways, walkways, hot walkers and all other exposed surfaces within the stable area not covered by roofs.

a. DESCRIPTIONS OF IMPROVEMENTS

In order to effectively collect, store and prohibit storm water discharges from the stable area entering the Arcadia Wash up to the 25-year, 24-hour rainfall event standard set forth in 40 C.F.R. section 412.13, three (3) major steps are planned.

Step 1: Isolated Roof Drain System

A separate dedicated storm drain system will be implemented to collect all rooftop runoff up to the 25-year, 24-hour rainfall event within the stable area. Upon completion of the roof drain system, it will result in two discharge points to the Arcadia Wash.

Step 2: CAFO Basin

A portion of the Owner's Parking Lot will be converted into a CAFO Basin. The CAFO Basin will drain to the sewer at a controlled rate. The CAFO Basin will be designed as a depressed storage basin with a capacity of 3.0 ac-ft to accommodate the 25-year, 24-hour rainfall event for the stable area (dirt surfaces only) and the hay waste transfer area directly adjacent to the stables.

Step 3: Sewer Diversion System Modifications and Water Line Relocations

After the implementation of the roof drain system and CAFO basin, modifications to the existing storm drain/sewer diversion system will be required. Under the proposed conditions, all flows collected by the sewer diversion system will be modified to discharge into the proposed CAFO basin via gravity flows. A new lift station will be incorporated to transfer runoff from the CAFO basin to the sanitary sewer system.

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2. PROPOSED NON-CAFO IMPROVEMENTS

The purpose of the non-CAFO improvements is to consolidate the number of outfalls (currently thirteen) draining the non-CAFO areas and provide storm water treatment prior to discharge into the Arcadia Wash.

In order to consolidate the large number of non-CAFO outfalls, three separate interceptor storm drain lines are proposed which reduced the total number of non-CAFO outfalls from thirteen to six.

With each new outfall, treatment controls will be incorporated to reduce total suspended solids, bacteria, metals and other pollutants prior to discharging the storm water into the Arcadia Wash.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

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A. Legal Authorities

This Order is a WDR, enacted pursuant to Article 4, Chapter 4, Division 7 of the California Water Code (commencing with section 13260) and implementing regulations. 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 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 Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to Arcadia Wash (Reach 2) are as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Points	Receiving Water Name	Beneficial Use(s)
001, 002-003, 004, 005-006, 007 008, 009, 010, 011, 012, 013, 014, 015	Arcadia Wash (Hydro Unit No. 405.41) Rio Hondo Reach 3	Existing: None Intermittent: Groundwater recharge (GWR) and non-contact water recreation (REC-2). Potential: Municipal and domestic water supply (MUN)* and water contact recreation (REC-1), warm freshwater habitat (WARM), and wildlife habitat (WILD).

* Designated under SB Resolution 88-63 and RB Resolution 89-03. Some designations may be considered for exemption at a later date. In the interim, no new effluent limitations will be placed in the WDRs as a result of this designation until the Regional Board adopts this amendment.

Requirements of this Order implement the Basin Plan.

2. **Thermal Plan.** The State 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. Additionally, a white paper developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*[1], evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel, a number of aquatic species prevalent in the region. A maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life and it is consistent with the maximum temperature limitation of 86°F for discharges to the estuaries included in the Thermal Plan. Therefore, based on the Thermal Plan and best professional judgment (BPJ), a maximum effluent temperature limitation of 86°F is included in this Order.

3. **Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Table 3-1 through Table 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The amendment reflects the revised water quality criteria developed by U.S. EPA in the *"1999 Update of Ambient Water Quality Criteria for Ammonia,"* December 1999. This Order includes effluent limitations for ammonia as per this Basin Plan amendment.

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.

[1] Available in Administrative Record for the permit. Contact Regional Water Board staff for a copy.

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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 water quality criteria for priority pollutants**.** Specifically, this Order contains water quality criteria for antimony, arsenic, beryllium, cadmium, chromium III, chromium VI, copper, lead, mercury, nickel, selenium, silver, thallium, zinc, bis(2ethylhexl) phthalate, and cyanide based in whole or in part on the CTR.

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. **Domestic Water Quality.** In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels implemented by the Basin Plan that are designed to protect human health and ensure that water is safe for domestic use.

7. **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 No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

8. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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.

9. **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

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

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

The U.S. EPA approved the State's 2012 CWA section 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 2012 CWA section 303(d) list and have been scheduled for TMDL adoption. The Facility discharges into Los Angeles River Reach 2. The 2012 California CWA section 303(d) List classifies the Los Angeles River Reach 2 as impaired. The pollutants/stressors of concern for the Los Angeles River Reach 2 include: ammonia, coliform bacteria, cadmium, copper, lead, zinc, nutrients (algae), oil, and trash. The following are summaries of adopted TMDLs developed to address these impairments in Los Angeles River Reach 2.

1. **Bacteria TMDL for Los Angeles River.** On July 9, 2010, the Regional Water Board adopted Resolution No. R10-007, Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a TMDL for Indicator Bacteria in the Los Angeles River Watershed (LA River Bacteria TMDL). The LA River Bacteria TMDL contains WLAs of single sample and geometric mean numeric targets for E.coli during both dry and wet weather events. The LA River Bacteria TMDL was approved by the State Water Board on November 1, 2011; by the OAL on March 21, 2012; and by the U.S. EPA on March 23, 2012. It became effective on March 23, 2012. The Los Angeles River Bacteria TMDL contains WLAs of single sample and geometric mean numeric targets for E.coli during both dry and wet weather events for general and individual NPDES permits. Currently, there is no monitoring data from the Facility for E.coli. Effluent limitations and monitoring are included for E.coli.

2. **Nutrient TMDL for Los Angeles River.** The Regional Water Board adopted Resolution No. 03-009 on July 10, 2003, that amended the Basin Plan to incorporate a TMDL for Nitrogen Compounds, and Related Effects in the Los Angeles River (LA River Nutrients TMDL). The TMDL was approved by the State Water Board and Office of Administrative Law on November 19, 2003, and February 27, 2004, respectively. The LA River Nutrients TMDL was approved by U.S. EPA on March 18, 2004, and became effective on March 23, 2004. Subsequently, Resolution No. 2003-016, which revised the interim effluent limitations for ammonia, was adopted by the Regional Water Board on December 4, 2003. The State Water Board approved the TMDL with Resolution 2004-0014 on March 24, 2004. OAL approved the TMDL on September 27, 2004, and it became effective on the same date. The TMDL was amended again by Resolution No. R12-010 to incorporate site-specific objectives for select reaches and tributaries of the Los Angeles River watershed. This amendment was approved by the Regional Water Board on December 6, 2012; by the State Water Board on June 4, 2013; by the OAL on June 9, 2014; by the U.S. EPA on August 7, 2014; and became effective on August 7, 2014. This Order includes effluent limitations based on the LA River Nutrients TMDL.

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3. **Trash TMDL for Los Angeles River.** The Los Angeles River Trash TMDL was adopted by the Regional Water Board on September 19, 2001. The TMDL established a numeric target of zero trash in the Los Angeles River. The TMDL was to be implemented via storm water permits in a phased reduction for a period of 10 years. The Los Angeles River Trash TMDL was approved by the State Water Board on February 19, 2002, and OAL on July 16, 2002. The U.S. EPA approved the TMDL on August 1, 2002, and it became effective on August 28, 2002. There were legal challenges to the Los Angeles River Trash TMDL, which resulted in the TMDL being set aside by the Regional Water Board on June 8, 2006, and the State Water Board on July 17, 2006. The Regional Water Board adopted an amendment to the Los Angeles River Trash TMDL (Resolution No. 2007-012) on August 9, 2007. The State Water Board approved the TMDL on April 15, 2008. OAL approved the TMDL on July 1, 2008. The U.S. EPA approved the TMDL on July 24, 2008, and it became effective on September 23, 2008. This TMDL was later revised on June 11, 2015 (Resolution No. 2015-006), and the State Water Board approved it on November 17, 2015. OAL approved the revised TMDL on May 4, 2016, and U.S. EPA approved it on June 30, 2016. The implementation of the TMDL is specific to municipal separate storm sewage system (MS4) permittees within the Los Angeles River Watershed; no specific WLAs are specified for nonmunicipal storm water NPDES permittees. However, consistent with the Trash TMDL, this Order requires a Storm Water Pollution Prevention Plan (SWPPP), which is expected to minimize/prevent the discharge of trash from the Facility to the Los Angeles River Watershed.

4. **Metals TMDL for Los Angeles River.** The Regional Water Board amended the Basin Plan to incorporate the Los Angeles River and Tributaries Metals TMDL through Resolution No. R05-006 on June 2, 2005. It was approved by the State Water Board on October 20, 2005; by the OAL on December 9, 2005; and by the U.S. EPA on December 22, 2005; it became effective on January 11, 2006. The TMDL establishes numeric water quality targets for cadmium, copper, lead, and zinc in wet and dry weather that are based on criteria established by U.S. EPA in the CTR. The TMDL was subsequently amended by Resolutions Nos. R2007-014, R10-003, and R15-004. Resolution No. R15-004 was adopted by the Regional Water Board on April 9, 2015, and approved by the State Water Board, the OAL, and the U.S. EPA on November 17, 2015, July 11, 2016, and December 12, 2016, respectively. It became effective on December 12, 2016, and revised the copper WLAs using site-specific water effect ratios (WERs) for the different reaches of the Los Angeles River and its tributaries, and also revised the lead WLAs by recalculating the lead acute and chronic water quality criteria used to develop the WLAs. The TMDL revisions also included language stating that, regardless of the WER, for discharges with concentrations below WER adjusted allocations, effluent limitations shall ensure effluent concentrations do not exceed the level of water quality that can be reliably maintained by the facility's applicable treatment technologies existing at the time of permit issuance, reissuance, or modification unless anti-backsliding and anti-degradation requirements are met. The implementation of the revised lead WLA based on the recalculated lead water quality criteria in Resolution No. R15-004 will not take effect until the U.S. EPA depromulgates the current lead CTR water quality criteria, as those are more stringent than the recalculated acute and chronic criteria for lead in the TMDL amendment. This Order includes effluent limitations for wet weather discharges in accordance with the Los Angeles River Metals TMDL (Resolution No. R15-004) and for lead based on the WLAs included in Resolution No R10-003.

E. Harbor Toxics TMDL

The Regional Water Board adopted Resolution No. R11-008 on May 5, 2011, that amended the Basin Plan to incorporate the *TMDL for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters* (Harbor Toxics TMDL). The Harbor Toxics TMDL was approved by the State Water Board on February 7, 2012, the OAL on March 21, 2012, and the U.S. EPA on March 23, 2012. The Harbor Toxics TMDL contains requirements applicable to this discharge. Therefore, this Order contains monitoring requirements based on the TMDL.

Responsible parties identified in the Los Angeles River and Tributaries Metals TMDL are responsible for conducting water and sediment monitoring above the Los Angeles River Estuary to determine the river's contribution to impairments in the Greater Harbor waters. The Discharger shall join a group already formed or develop a site specific monitoring plan. The following component shall be included in the monitoring plan.

1. Water Column Monitoring

Water samples and total suspended solids samples shall be collected at one site at least (if not more) during two wet weather events and one dry weather event each year. The first large storm event of the season shall be included as one of the wet weather monitoring events. Water samples and total suspended solid samples shall be analyzed for metals, DDT, PCBs, and PAHs. Sampling shall be designed to collect sufficient volumes of suspended solids to allow for analysis of the listed pollutants in the bulk sediment.

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

2. Sediment Monitoring

For sediment chemistry, sediment samples shall be collected at, at least one site every two years for analysis of general sediment quality constituents and the full chemical suite as specified in State Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (SQO Part 1). All samples shall be collected in accordance with Surface Water Ambient Monitoring Program (SWAMP) protocols.
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The details of the Monitoring Program including sampling location and all methods shall be specified in the Monitoring and Reporting Program (MRP). The proposed MRP will be reviewed by the Regional Board and the public. After required updates are implemented then the MRP will be approved by the Executive Officer.

3. Quality Assurance Project Plan

The Quality Assurance Project Plan (QAPP) shall describe the project objectives and organization, functional activities, and quality assurance/quality control protocols for the water and sediment monitoring. The QAPP shall include protocols for sample collection, standard analytical procedures, and laboratory certification. All samples shall be collected in accordance with SWAMP protocols.

The details of the Monitoring Program including sampling location and all methods shall be specified in the Monitoring and Reporting Program (MRP). The MRP will be reviewed by the Regional Board and the public. After required updates are implemented then the MRP will be approved by the Executive Officer.

F. Title 22 of the California Code of Regulations

Primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water are codified in Title 22, California Code of Regulations (Title 22). To protect the beneficial uses of Municipal and Domestic Supply (MUN), the Basin Plan (Chapter 3) includes the "Chemical Constituents" water quality objectives, which incorporates Title 22 primary MCLs by reference as water quality objectives. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect.

Groundwater Recharge (GWR). The Los Angeles River Reach 2 (Rio Hondo Reach 1 to Figueroa Street) is designated as GWR. Surface water from the Los Angeles River percolates into the Raymond and San Gabriel Valley Groundwater Basins, both of which have MUN beneficial use specified in the Basin Plan. Since groundwater from this Basin is suitable for drinking water for the community, the groundwater aquifers must be protected. Therefore, Title 22-based limits are used to protect that drinking water supply. The MCLs were considered during the development of effluent limits included in this Order.

G. Other Plans, Polices and Regulations

Not applicable.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards (TBELs); and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water (WQBELs).

A. Discharge Prohibitions

Discharge Prohibitions in this Order are based on the federal CWA and implementing regulations; the Basin Plan, the State Water Code and its implementing regulations; the State Water Board's plans and policies; U.S. EPA guidance and regulations; and previous permit provisions.

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. Specifically, the discharge authorized by this Order must meet minimum federal technology-based requirements based on 40 C.F.R. section 122.23 (NPDES Permit Regulations); 40 C.F.R. Part 412, Subpart A—Horses and Sheep, (Effluent Limitation Guidelines [ELGs] and Standards for Concentrated Animal Feeding Operations [CAFOs]); and 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 performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

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

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

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

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

Technology-based effluent limits are intended to achieve a minimum level of treatment of pollutants for point source discharges. Effluent limitation guidelines and standards (ELGs) that would apply to a CAFO are defined in 40 C.F.R. Part 412.

The previous Order incorporated the revised regulations redefining the areas of the CAFO subject to the regulatory requirements, and established ELGs for large CAFOs (including horses). The proposed Order also includes these conditions, including the requirement that: the area regulated as a CAFO includes all areas that are considered "production areas," as defined in section 412.2(h), as revised February 12, 2003. The ELGs state that there can be no discharge of wastewater pollutants to waters of the U.S. except, "an overflow that occurs because of a rainfall event from a facility designed, constructed, operated, and maintained to contain all process-generated wastewater plus the runoff from a 25-year, 24-hour rainfall event for the location of the CAFO."

The Discharger shall notify the Regional Water Board and develop a Nutrient Management Plan (NMP) in accordance with 40 C.F.R. section 122.42(e)(1). If operations continue as proposed, the Discharger is required to submit a statement with each annual self-monitoring report confirming that Santa Anita has not land-applied any manure or wastewater during that year.

2. Applicable Technology-Based Effluent Limitations

3. CAFO Areas

i. Technology-based Effluent Limitations and Standards – Production Area

There may be no discharge of manure, litter, or process wastewater pollutants into waters of the United States from the production area except as provided below.

Whenever precipitation causes an overflow of manure, litter or process wastewater, pollutants in the overflow may be discharged into waters of the United States, however, this discharge must comply with the discharge limitations, provided:

(a) The overflow consists of process wastewater and any commingled storm water from a facility designed, constructed, operated and maintained to contain all manure, litter, and process wastewater plus the runoff and direct precipitation from a 25-year, 24-hour rainfall event for the CAFO. The design storage volume must reflect all wastes accumulated during the storage period; normal precipitation less evaporation during the storage period; normal runoff during the storage period; the direct precipitation and runoff from the 25-year, 24-hour rainfall event from the production area; residual solids after liquid has been removed; necessary freeboard to maintain the structural integrity of the lagoon; and in the case of treatment lagoons, a minimum treatment volume.

ii. Technology-based Effluent Limitations and Standards – Land Application Areas Under the Control of the CAFO Owner/Operator

The Discharger must develop and implement an NMP in accordance with the requirements specified in Attachment J of the Order. The NMP must address protocals to be implemented for land application if it is employed. The NMP must be submitted to the Regional Water Board and made available for public review.

4. Non-CAFO Areas

i. Effluent Limitations

(a) This Order includes new technology-based effluent limitations based on BPJ in accordance with Section 125.3. Technology based effluent limitations for the permitted storm water only discharges include MDELs for TSS, oil and grease, and BOD_5. The limitations for these pollutants are consistent with technology-based limitations included in other Orders within the region for storm water discharges.

This Order requires the Discharger to update and continue to implement a Storm Water Pollution Prevention Plan (SWPPP) (Attachment G). This Order will require the Discharger to update and continue to implement, the SWPPP. The revised SWPPP

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must reflect current operations, treatment activities, and staff responsible for implementing and supporting the SWPPP. The SWPPP must outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into the storm drain.

This Order also requires that the Discharger develop and implement a Best Management Practices Plan (BMPP). 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 of the Facility. The BMPP shall include a summary of BMPs aimed at controlling the potential exposure of pollutants to storm water, inspection practices, schedules of preventive maintenance, housekeeping procedures, vehicle management practices, and spill containment and cleanup procedures. The BMPP should demonstrate the Discharger's continued effective implementation of the SWPPP.

The combination of the SWPPP, BMPP, and permit limitations reflecting BPJ will serve as the equivalent of technology based effluent limitations (TBELs), in order to carry out the purposes and intent of the CWA. BPJ is the method used by permit writers to develp technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data. BPJ-based TBELs are established in cases where effluent limitation guidelines are not available for a particular pollutant of concern. Authorization for using BPJ limitations is found under 40 CFR section 125.3(c). Regional Board staff has considered factors outlined in 40 CFR sections 125.3(c) and (d)(1) in establishing its limitations for pH, temperature, TSS, oil and grease and BOD. A table summarizing the considerations follows.

Table F-4. Factors Considered Pursuant to 40 C.F.R. section 125.3(c)(2) and (d)(3) for Pollutant Effluent Limitations based on Best Professional Judgement

Factors	Considerations
The appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information	Although the Regional Board makes no determination as to what the appropriate technology is, dischargers in Region 4 have and continue to comply with the effluent limitations for pH, temperature, BOD_5, TSS, oil and grease, and settleable solids, effluent limitations using existing practicable and economically achievable treatment technologies. Such technology has been in use for decades.
Any unique factors relating to the applicant	Effluent limitations for these pollutants in storm water discharges have been included in a number of individual industrial permits for in excess of ten years. The data submitted by these permittees has been in compliance with the limits for storm water discharges. The effluent limits however are new to the Los Angeles Turf Club, Inc. Santa Anita Park. Consequently, staff has proposed interim effluent limitations and a compliance schedule in the accompanying Time Schedule Order, which will be considered by the Regional Board.
Cost of effluent reduction	The cost of achieving effluent reductions is reasonable because such technologies are readily available and

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Factors	Considerations
	affordable. Most storm water dischargers are already employing practicable and economically achievable treatment technologies to ensure compliance with the Basin Plan criteria.
Age of equipment and facilities	Regardless of the age of their existing equipment and facilities, dischargers to waters of the State are required to comply with the Basin Plan criteria.
Processes employed	Most dischargers with effluent limitations for these Basin Plan criteria already employ BMPs or treatment technologies to comply with the effluent limitations.
Engineering aspects of application of control techniques	BMPs such as covering areas that have contaminants that may be transported by storm water runoff, completing pre-storm event inspections and securing areas that may contribute to pollutant concentrations in the discharges, and any other operating procedures that will result in ensuring that pollutants are not discharged offsite will reduce the pollutant concentrations in the discharge.
Process changes	The discharger may need to modify their existing BMPs and/or treatment processes.
Non-water-quality environmental impact (including energy requirements)	The discharger may need to modify their existing BMPs and/or treatment processes, such as including some type of filtration on the runoff that exits the racetrack and/or paddock areas. The design of the stable areas, operational waste disposal area, and the standard operating procedures for managing waste generated at the facility may require modifications. The non-water-quality environmental impact of such changes may involve additional cost for solid waste disposal.

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

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Table F-5. Summary of Technology-based Effluent Limitations - Discharge Points 001, 002-003, 004, 005-006, 007, 008, 009, 010, 013, 014, 015

Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
pH	All	--	s.u	6.5 – 8.5[1]
Temperature	All	--		86
BOD_5 @ 20°C	All	--	mg/L	30
	001	1.33	lbs/day	323
	002 - 003	0.11	lbs/day	28
	004	0.85	lbs/day	213
	005 - 006	0.06	lbs/day	15
	007	0.07	lbs/day	18
	008	0.02	lbs/day	5
	009	0.07	lbs/day	18
	010	0.35	lbs/day	88
	011	0.09	lbs/day	23
	012	0.4	lbs/day	100
	013	3.11	lbs/day	778
	014	1.26	lbs/day	315
	015	2.92	lbs/day	731
Total Suspended Solids (TSS)	All	--	mg/L	75
	001	1.33	lbs/day	832
	002 - 003	0.11	lbs/day	69
	004	0.85	lbs/day	532
	005 - 006	0.06	lbs/day	38
	007	0.07	lbs/day	44
	008	0.02	lbs/day	13
	009	0.07	lbs/day	44
	010	0.35	lbs/day	219
	011	0.09	lbs/day	56
	012	0.4	lbs/day	250
	013	3.11	lbs/day	1945
	014	1.26	lbs/day	788

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Total Suspended Solids (TSS)	015	2.92	lbs/day	1827
Oil and Grease	All	--	mg/L	15
	001	1.33	lbs/day	166
	002	0.11	lbs/day	14
	004	0.85	lbs/day	106
	005 - 006	0.06	lbs/day	8
	007	0.07	lbs/day	9
	008	0.02	lbs/day	3
	009	0.07	lbs/day	9
	010	0.35	lbs/day	44
	011	0.09	lbs/day	11
	012	0.4	lbs/day	50
	013	3.11	lbs/day	389
	014[1]	1.26	lbs/day	158
	015[1]	2.92	lbs/day	365
Settleable Solids	All	--	ml/L	0.3

1. Instantaneous minimum and maximum range

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C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

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

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential to cause or contribute to an exceedance of a water quality standard has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) 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 assumptions and requirements of TMDL WLAs approved by U.S. EPA.

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

The specific procedures for determining reasonable potential to cause or contribute to an exceedance of a water quality standard and, if necessary, calculating WQBELs are contained in the Technical Support Document (TSD) for storm water discharges and in the SIP for non-storm water discharges. The TSD in section 3.8.8 in the paragraph on page 64 states: "The statistical approach shown in Box 3-2 or 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 State Board's Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2005) (the "State Implementation Policy" or 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 and CAFO process wastewater from the Santa Anita Park.

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2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As noted in Section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to Arcadia Wash 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 Arcadia Wash. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. The CTR criteria for freshwater or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Arcadia Wash, a water of the United States.

Some water quality criteria are hardness dependent. The Discharger did not provide any monitoring data for Arcadia Wash; therefore, the median hardness value from all effluent monitoring conducted was used to complete the RPA. The median hardness value of effluent sampling reported was 60 mg/L as $CaCO_3$. This hardness value was used for evaluation of reasonable potential.

a. **Los Angeles River Metals TMDL.** The TMDL was amended on April 9, 2015, through Resolution No. R15-004, and includes concentration-based dry weather WLAs for copper, lead, and zinc in Rio Hondo Reach 1, and concentration based wet weather WLAs. The Santa Anita Park discharges to Arcadia Wash which is Rio Hondo Reach 3.

There are no dry weather WLAs included in the TMDL for that reach. This Order prescribes effluent limitations based on the wet weather WLAs for cadmium, copper, lead, and zinc. The lead WLA included in R15-004 is based on a modified criteria which is less stringent than the CTR criteria. The CTR preamble indicates that the State cannot implement any modifications that are less stringent than the CTR without an amendment to the CTR to reflect the modifications. Therefore, the lead WLA from the previous TMDL R10-003 is implemented in this Order.

Wet weather targets are applicable when the flow in the Los Angeles River at Station F319-R (Wardlow Gauge) is greater than or equal to 500 cubic feet per second (cfs). Dry weather targets are applicable when flow in the Los Angeles River at Station F319-R (Wardlow Gauge) is less than 500 cfs. The TMDL states that permit writers may translate applicable WLAs into effluent limitations for the major, minor, and general NPDES permits by applying the effluent limitation procedures in Section 1.4 of the SIP or other applicable engineering practices authorized under federal regulations. This Order includes wet weather effluent limitations for cadmium, copper, and zinc based on the WLAs contained in the Los Angeles River Metals TMDL R15-004, and for lead based on WLAs from R10-003 and applying the procedures in Section 1.4 of the SIP.

Table F-6 summarizes the wet weather WLAs for cadmium, copper, lead, and zinc included in the Los Angeles River Metals TMDL that are applicable to the Facility's discharge through Discharge Points to the Arcadia Wash of Los Angeles River Reach 2.

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Table F-6. Applicable Los Angeles River Wet Weather Metals TMDL Waste Load Allocations

Parameter	Units	Waste Load Allocation
		Wet-Weather
Cadmium, Total Recoverable	µg/L	3.1[1,2,3,4]
Copper, Total Recoverable	µg/L	67.5[2,3,4,5]
Lead, Total Recoverable	µg/L	62[1,6]
Zinc, Total Recoverable	µg/L	159[1.2,3,4]

1 Water effect ratio (WER) of 1.0 is used.
2 WLAs for these parameters are based on acute CTR criteria.
3 Based on 50th percentile hardness value (141 mg/L as CaCO3).
4 WLA is based on Los Angeles River TMDL R15-004
5 WER = 3.97
6 WLA is based on Los Angeles River TMDL R10-003

b. **Los Angeles River Bacteria TMDL.** The Los Angeles River Bacteria TMDL contains WLAs of zero days of allowable exceedances of the single sample target of 235/100mL *E. coli* for both dry and wet weather (defined as days with 0.1 inch of rain or greater and the three days following the rain event) and no exceedances of the geometric mean numeric target of 126/100 mL *E. coli* for general and individual NPDES permits with discharges to the Los Angeles River and its tributaries. The calculation of the rolling 30-day geometric mean requires a statistically sufficient number of samples (generally, at least five equally spaced samples over a 30-day period). There is no monitoring data available for E.coli, therefore no effluent limitations are given. The Discharge is required to monitor for E.coli in all the effluent storm water discharges.

c. **Los Angeles River Trash TMDL.** This TMDL establishes a WLA of zero for trash in the Los Angeles River and its tributaries for municipal storm water permittees, including

Caltrans. The implementation of the TMDL is specific to MS4 permittees within the Los Angeles River Watershed; no specific WLAs are specified for nonmunicipal storm water NPDES permittees. However, consistent with the Trash Amendment, this Order includes a prohibition of the discharge of trash and requires the implementation of a SWPPP as discussed in f this Fact Sheet, which are expected to prevent/minimize the discharge of trash to the Los Angeles River Watershed from the Facility.

Table F-7 summarizes the applicable water quality criteria/objective for priority pollutants reported in detectable concentrations in the effluent or receiving water for the individual outfalls evaluated based on data submitted to the Regional Water Board. These criteria were used in conducting the Reasonable Potential Analysis (RPA) for this Order.

Table F-7. Applicable Water Quality Criteria – All Discharge Points

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria			MUN	Total Maximum Daily Loads (TMDL)[1]
			Fresh Water		Human Health for Consumption of Organisms Only		
			Acute	Chronic		Organic & inorganic	
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
1	Antimony	6.00	--	--	4300	6.00	--
2	Arsenic	10.00	340.00	150.00	--	10.00	--
3	Beryllium	4.00	--	--	Narrative	4.00	--
4	Cadmium (wet weather)	3.1	--	--	--	--	3.1
4	Cadmium (dry weather)	1.65	2.54	1.65	Narrative	5	--
5a	Chromium III	136.22	11431	136.22	Narrative	--	--
5b	Chromium VI	11.4	16.3	11.4	--	--	--
6	Copper (wet weather)	67.5	--	--	--	--	67.5
6	Copper (dry weather)	6.	8.65	6	Narrative	--	--
7	Lead (wet weather)	62	--	--	--	--	62
7	Lead (dry weather)	1.66	42.61	1.66	--	--	--
8	Mercury	0.051	--	--	0.051	2.00	--
9	Nickel	120.11	304.53	33.86	4600	100	--
10	Selenium	5	20	5	--	50	--
12	Thallium	2.00	--	--	6.3	2.00	--
13	Zinc (wet weather)	159	--	--	--	--	159
13	Zinc (dry weather)	77.72	77.72	77.72	--	--	--
14	Cyanide	5.2	22	5.2	220000	200	--
68	Bis(2-ethylhexyl) phthalate	4	--	--	5.9	4	--

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3. Determining the Need for WQBELs

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

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

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

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

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

Sufficient effluent and receiving water data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. Adequate effluent data sets were available for all outfalls with the exception of Discharge Point 003. In addition, no receiving water data are available. Based on the RPA, pollutants that demonstrate reasonable potential are chromium (III), chromium (VI), cyanide, mercury, nickel, selenium, thallium, and bis(2-ethylhexyl)phthalate Refer to Attachment L for a summary of the RPA and associated effluent limitation calculations.

The Regional Water Board developed WQBELs for cadmium, copper, lead, and zinc for all outfalls implementing the available WLAs established in the *Los Angeles River and Tributaries Metals TMDL*. The Regional Water Board developed water quality-based effluent limitations for these constituents pursuant to section 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis. Similarly, the SIP at Section 1.3 recognizes that reasonable potential analysis is not appropriate if a TMDL has been developed.

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4. WQBEL Calculations

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

i. If applicable and available, use of the waste load allocation (WLA) established as part of a total maximum daily load (TMDL).

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

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

b. WQBELs (final) for wet weather for cadmium, copper, lead, and zinc have been established for all Outfalls based on the TMDL. In addition, WQBELs for antimony, arsenic, beryllium, chromium (III) chromium (VI), cyanide, mercury, nickel, selenium, thallium and bis(2-ethyhexyl)phthalate have been established at all outfalls where the pollutant concentrations demonstrated reasonable potential. These water quality based effluent limitations are based on monitoring results and following the procedure based on the steady-state model, available in Section 1.4 of the SIP.

Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this Order, no dilution credit is included. However, in accordance with the reopener provision in Section VI.C.1.e, this Order may be reopened upon the submission by the Discharger of adequate information to establish appropriate dilution credits or a mixing zone, as determined by the Regional Water Board.

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WQBELs Calculation Example

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

Concentration-Based Effluent Limitations

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

Calculation of aquatic life AMEL and MDEL:

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

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 60 mg/L (as $CaCO_3$) was used for development of hardness-dependant criteria, and a pH of 6.5 was used for pH-dependant criteria.
D = The dilution credit, and
B = The ambient background concentration

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

ECA = C

For nickel, the applicable water quality criteria are:

ECA_{acute}= 304.54 µg/L
$ECA_{chronic}$= 33.86 µg/L

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

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

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

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6.

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

No. of Samples	CV	ECA Multiplier$_{acute\ 99}$	ECA Multiplier$_{chronic\ 99}$
4	0.60	0.32	0.53

LTA_{acute} = 304.54 µg/L x 0.32 = 97.78 µg/L

$LTA_{chronic}$ = 33.86 µg/L x 0.53 = 17.86 µg/L

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

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

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

LTA = 17.86 µg/L

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

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

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

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

For nickel, the following data were used to develop the AMEL and MDEL for aquatic life using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$
4	0.60	3.11	1.55

$AMEL_{aquatic\ life}$ = 17.86 µg/L x 1.55 = 27.72 µg/L

$MDEL_{aquatic\ life}$ = 17.86 µg/L x 3.11 = 55.62 µg/L

Calculation of human health AMEL and MDEL:

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

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

For nickel:

$ECA_{human\ health}$ = 4,600 µg/L

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

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

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

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$	Ratio
4	0.6	3.11	1.55	2.01

$MDEL_{human\ health}$ = 4,600 µg/L x 2.01 = 9,228 µg/L

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

For nickel:

$AMEL_{aquatic\ life}$	$MDEL_{aquatic\ life}$	$AMEL_{human\ health}$	$MDEL_{human\ health}$
28 µg/L	56 µg/L	4,600 µg/L	9,228 µg/L

The lowest (most restrictive) of the aquatic life and human health effluent limits for nickel are based on aquatic toxicity and were incorporated into this Order. The storm water only discharge outfalls have MDEL limitations only as storm events in the region are infrequent and of short duration. Wet Weather effluent limits for cadmium, copper, lead, and zinc are based on the *Los Angeles River and Tributaries Metals TMDL (Resolutions R15-004 and R10-003).*

5. WQBELS based on Basin Plan Objectives

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

The Basin Plan lists temperature requirements for the receiving waters and references the Thermal Plan. Based on BPJ a maximum effluent temperature limitation of 86 °F is included in the permit. The effluent limitations for fecal coliform are based on the Basin Plan objective developed to protect potential contact recreation beneficial use in Arcadia Wash. The effluent limitations for E.coli are based on the Bacteria TMDL for Los Angeles River.

6. Whole Effluent Toxicity (WET)

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

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator

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species, and/or significant alterations in population, community ecology, or receiving water biota. The existing Order contains acute toxicity monitoring requirements in accordance with the Basin Plan, in which the acute toxicity objective for discharges dictates that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. The Discharger submitted aquatic toxicity monitoring results ranging from 0 – 100 % survival. A median value of 82% survival was calculated based on effluent data provided for all outfalls, with the exception of Discharge Points 006 and 007, for which no data were available.

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 IWCs 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 statistical approach, resulting in "Fail" and the Percent Effect is ≥50%.

This Order includes monitoring requirements and effluent limitations for chronic toxicity, consistent with the Basin Plan. Chronic toxicity is a more stringent requirement than acute toxicity, as it evaluates the mortality endpoint as does the acute toxicity testing and reductions in growth and reproduction. The whole effluent toxicity testing requirements will be evaluated using U.S. EPA's 2010 Test of Significant Toxicity (TST) statistical approach. Chronic toxicity results are expressed as "Pass" or "Fail" and "%" Effect.

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7. Final WQBELs

Table F-8. Summary of Water Quality-based Effluent Limitations

Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
pH	All	--	s.u	6.5 -8.5[1]
Temperature	All	--	ºF	86
Chronic Toxicity[3]	All	--	Pass or Fail, % Effect	Pass or % Effect<50
Antimony	004, 012	--	µg/L	6
	004	0.85	lbs/day[2]	0.04
	012	0.4	lbs/day[2]	0.02
Arsenic	001, 002-003, 004, 005-006, 007, 008, 009, 013, 014, 015	--	µg/L	10
	001	1.33	lbs/day[2]	0.1
	002-003	0.11	lbs/day[2]	0.009
	004	0.85	lbs/day[2]	0.07
	005-006	0.06	lbs/day[2]	0.005
	007	0.07	lbs/day[2]	0.006
	008	0.02	lbs/day[2]	0.002
	009	0.07	lbs/day[2]	0.006
	013	3.11	lbs/day[2]	0.3
	014	1.26	lbs/day[2]	0.1
	015	2.92	lbs/day[2]	0.2

Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Beryllium	004, 007, 013	--	µg/L	4
	004	0.85	lbs/day[2]	0.03
	007	0.07	lbs/day[2]	0.002
	013	3.11	lbs/day[2]	0.1
Cadmium, Total Recoverable (Wet Weather)	All	--	µg/L	3.1
	001	1.33	lbs/day [2]	0.03
	002-003	0.11	lbs/day [2]	0.003
	004	0.85	lbs/day [2]	0.02
Cadmium, Total Recoverable (Wet Weather)	005-006	0.06	lbs/day [2]	0.002
	007	0.07	lbs/day [2]	0.002
	008	0.02	lbs/day [2]	0.0005
	009	0.07	lbs/day [2]	0.002
	010	0.35	lbs/day [2]	0.01
	011	0.09	lbs/day [2]	0.002
	012	0.4	lbs/day [2]	0.01
	013	3.11	lbs/day [2]	0.08
	014	1.26	lbs/day [2]	0.03
	015	2.92	lbs/day [2]	0.08
Cadmium, Total Recoverable (Dry Weather based on CTR criteria)	002-003, 004, 005-006, 007, 010, 013, 014, 015	--	µg/L	2.5
	002-003	0.11	lbs/day [2]	0.002
	004	0.85	lbs/day [2]	0.02
	005-006	0.06	lbs/day [2]	0.001
	007	0.07	lbs/day [2]	0.001
	010	0.35	lbs/day [2]	0.007
	013	3.11	lbs/day [2]	0.06
	014	1.26	lbs/day [2]	0.03
	015	2.92	lbs/day [2]	0.06
Chromium III, Total Recoverable	002-003, 004,005-006, 007, 013, 014, 015	--	µg/L	224
	002-003	0.11	lbs/day [2]	0.2
	004	0.85	lbs/day [2]	1.6
	005-006	0.06	lbs/day [2]	0.1
	007	0.07	lbs/day [2]	0.1
	013	3.11	lbs/day [2]	5.8
	014	1.26	lbs/day [2]	2.2
	015	2.92	lbs/day [2]	5.5
Chromium VI, Total Recoverable	001, 002-003, 004, 005-006, 007, 013, 014, 015	--	µg/L	16.3

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Chromium VI, Total Recoverable	001	1.33	lbs/day [2]	0.2
	002-003	0.11	lbs/day [2]	0.02
	004	0.85	lbs/day [2]	0.1
	005-006	0.06	lbs/day [2]	0.008
	007	0.07	lbs/day [2]	0.01
	013	3.11	lbs/day [2]	0.4
	014	1.26	lbs/day [2]	0.2
	015	2.92	lbs/day [2]	0.4
Copper, Total Recoverable (Wet Weather)	All	--	µg/L	67.5
	001	1.33	lbs/day [2]	0.7
	002-003	0.11	lbs/day [2]	0.06
	004	0.85	lbs/day [2]	0.5
	005-006	0.06	lbs/day [2]	0.03
	007	0.07	lbs/day [2]	0.04
	008	0.02	lbs/day [2]	0.01
	009	0.07	lbs/day [2]	0.04
	010	0.35	lbs/day [2]	0.2
	011	0.09	lbs/day [2]	0.05
	012	0.4	lbs/day [2]	0.2
	013	3.11	lbs/day [2]	1.7
	014	1.26	lbs/day [2]	0.7
	015	2.92	lbs/day [2]	1.6
Copper, Total Recoverable (Dry Weather based on CTR criteria)	All	--	µg/L	8.7
	001	1.33	lbs/day [2]	0.1
	002-003	0.11	lbs/day [2]	0.01
	004	0.85	lbs/day [2]	0.06
	005-006	0.06	lbs/day [2]	0.004
	007	0.07	lbs/day [2]	0.005
	008	0.02	lbs/day [2]	0.001
	009	0.07	lbs/day [2]	0.005
	010	0.35	lbs/day [2]	0.03
	011	0.09	lbs/day [2]	0.007
	012	0.4	lbs/day [2]	0.03
	013	3.11	lbs/day [2]	0.2
	014	1.26	lbs/day [2]	0.1
	015	2.92	lbs/day [2]	0.2

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Lead, Total Recoverable (Wet Weather)	All	--	µg/L	62
	001	1.33	lbs/day [2]	0.7
	002-003	0.11	lbs/day [2]	0.06
	004	0.85	lbs/day [2]	0.4
	005-006	0.06	lbs/day [2]	0.03
	007	0.07	lbs/day [2]	0.04
	008	0.02	lbs/day [2]	0.01
	009	0.07	lbs/day [2]	0.04
	010	0.35	lbs/day [2]	0.2
	011	0.09	lbs/day [2]	0.05
	012	0.4	lbs/day [2]	0.2
	013	3.11	lbs/day [2]	1.6
	014	1.26	lbs/day [2]	0.7
	015	2.92	lbs/day [2]	1.5
Lead, Total Recoverable (Dry Weather based on CTR criteria)	All	--	µg/L	2.7
	001	1.33	lbs/day [2]	0.03
	002-003	0.11	lbs/day [2]	0.003
	004	0.85	lbs/day [2]	0.02
	005-006	0.06	lbs/day [2]	0.001
	007	0.07	lbs/day [2]	0.001
	008	0.02	lbs/day [2]	0.0004
	009	0.07	lbs/day [2]	0.001
	010	0.35	lbs/day [2]	0.006
	011	0.09	lbs/day [2]	0.002
	012	0.4	lbs/day [2]	0.006
	013	3.11	lbs/day [2]	0.07
	014[1]	1.26	lbs/day [2]	0.03
	015[1]	2.92	lbs/day [2]	0.06
Mercury, Total Recoverable	001, 002-003, 004, 005-006, 007, 009, 010, 011, 012, 013, 014, 015	--	µg/L	0.1
	001	1.33	lbs/day [2]	0.001
	002-003	0.11	lbs/day [2]	0.0001
	004	0.85	lbs/day [2]	0.0007
	005-006	0.06	lbs/day [2]	0.00005
	007	0.07	lbs/day [2]	0.00006
	009	0.07	lbs/day [2]	0.00006
	010	0.42	lbs/day [2]	0.0004
	011	0.09	lbs/day [2]	0.00008
	012	0.4	lbs/day [2]	0.0003
	013	3.11	lbs/day [2]	0.003

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Mercury, Total Recoverable	014	1.26	lbs/day [2]	0.001
	015	2.92	lbs/day [2]	0.003
Nickel, Total Recoverable	002-003, 004, 005-006, 007, 009, 013, 014, 015	--	µg/L	56
	002-003	0.11	lbs/day [2]	0.05
	004	0.85	lbs/day [2]	0.4
	005-006	0.06	lbs/day [2]	0.03
	007	0.07	lbs/day [2]	0.03
	009	0.07	lbs/day [2]	0.03
Nickel, Total Recoverable	013	3.11	lbs/day [2]	1.5
	014	1.26	lbs/day [2]	0.6
	015	2.92	lbs/day [2]	1.4
Selenium, Total Recoverable	002-003, 004, 005-006, 007, 011,012, 013, 014	--	µg/L	8.2
	002-003	0.11	lbs/day [2]	0.008
	004	0.85	lbs/day [2]	0.06
	005-006	0.06	lbs/day [2]	0.004
	007	0.07	lbs/day [2]	0.005
	011	0.09	lbs/day [2]	0.006
	012	0.4	lbs/day [2]	0.03
	013	3.11	lbs/day [2]	0.2
	014	1.26	lbs/day [2]	0.09
Silver, Total Recoverable	004, 005-006, 007, 014	--	µg/L	1.7
	004	0.85	lbs/day [2]	0.009
	005-006	0.06	lbs/day [2]	0.0009
	007	0.07	lbs/day [2]	0.0009
	014	1.26	lbs/day [2]	0.02
Thallium	005-006, 007, 011, 012, 015	--	µg/L	2
	005-006	0.06	lbs/day [2]	0.001
	007	0.07	lbs/day [2]	0.001
	011	0.09	lbs/day [2]	0.002
	012	0.4	lbs/day [2]	0.006
	015	2.92	lbs/day [2]	0.05
Zinc, Total Recoverable (Wet Weather)	All	--	µg/L	159
	001	1.33	lbs/day [2]	1.8
	002-003	0.11	lbs/day [2]	0.2
	004	0.85	lbs/day [2]	1.1

TENTATIVE

Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Zinc, Total Recoverable (Wet Weather)	005-006	0.06	lbs/day [2]	0.08
	007	0.07	lbs/day [2]	0.09
	008	0.02	lbs/day [2]	0.03
	009	0.07	lbs/day [2]	0.09
	010	0.42	lbs/day [2]	0.6
	011	0.09	lbs/day [2]	0.1
	012	0.4	lbs/day [2]	0.5
	013	3.11	lbs/day [2]	4.1
	014[1]	1.26	lbs/day [2]	1.7
	015[1]	2.92	lbs/day [2]	3.9
Zinc, Total Recoverable (Dry Weather based on CTR criteria)	All	--	µg/L	77.7
	001	1.33	lbs/day [2]	0.9
	002-003	0.11	lbs/day [2]	0.07
	004	0.85	lbs/day [2]	0.6
	005-006	0.06	lbs/day [2]	0.04
	007	0.07	lbs/day [2]	0.05
	008	0.02	lbs/day [2]	0.01
	009	0.07	lbs/day [2]	0.05
	010	0.42	lbs/day [2]	0.3
	011	0.09	lbs/day [2]	0.06
	012	0.4	lbs/day [2]	0.3
	013	3.11	lbs/day [2]	2
	014	1.26	lbs/day [2]	0.8
	015	2.92	lbs/day [2]	1.9
Ammonia as Nitrogen	All	--	mg/L	8.7
	001	1.33	lbs/day [2]	97
	002-003	0.11	lbs/day [2]	8
	004	0.85	lbs/day [2]	62
	005-006	0.06	lbs/day [2]	4
	007	0.07	lbs/day [2]	5
	008	0.02	lbs/day [2]	1
	009	0.07	lbs/day [2]	5
	010	0.35	lbs/day [2]	25
	011	0.09	lbs/day [2]	7
	012	0.4	lbs/day [2]	29
	013	3.11	lbs/day [2]	226
	014	1.26	lbs/day [2]	92
	015	2.92	lbs/day [2]	212

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations
				Maximum Daily
Bis(2-ethylhexyl) phthalate	001, 004, 005-006, 007, 009, 011, 012, 013, 014, 015	--	µg/L	4
	001	1.33	lbs/day [2]	0.03
	004	0.85	lbs/day [2]	0.03
	005-006	0.06	lbs/day [2]	0.002
	007	0.07	lbs/day [2]	0.002
	009	0.07	lbs/day [2]	0.002
	011	0.09	lbs/day [2]	0.003
	012	0.4	lbs/day [2]	0.01
Bis(2-ethylhexyl) phthalate	013	3.11	lbs/day [2]	0.1
	014 [1]	1.26	lbs/day [2]	0.03
	015 [1]	2.92	lbs/day [2]	0.1
Cyanide	005-006, 008	--	µg/L	8.5
	005-006	0.06	lbs/day [2]	0.004
	008	0.02	lbs/day [2]	0.001
Fecal Coliform	All	--	MPN/100ml	[4]
E. coli	All	--	CFU/100 ml or MPN/100 ml	[5]

[1] Instantaneous minimum and maximum range.

[2] The mass-based (lbs/day) limitations are based on the maximum discharge flow of storm water , and are calculated as follows:

Mass(lbs/day) = 8.34 x C x Q

where

C = concentration for a pollutant, in mg/L

Q = maximum discharge flow rate in MGD for the storm water for the Outfall

[3] The maximum daily effluent limitation (MDEL) is exceeded when a toxicity test results in a "fail," and the percent effect is greater than or equal to 0.50.

[4] The single sample fecal coliform concentration shall not exceed 400/100ml and the geometric mean limit shall not exceed 200/100ml. The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

[5] The single sample E. coli concentration shall not exceed 235/100ml and the geometric mean limit shall not exceed 126/100ml. The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

TENTATIVE

D. Final Effluent Limitations

Section 402(o) of the CWA and section 122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders based on the submitted sampling data. Wet Weather effluent limitations for cadmium, copper, lead and zinc are included for each outfall based upon waste load allocations (WLAs) established in the *Los Angeles River and Tributaries Metals TMDL* (Resolution R15-004 and R10-003). Effluent limitations for dry weather cadmium, copper, lead, and zinc as well as for antimony, arsenic, beryllium, chromium (III), chromium (VI), mercury, nickel, selenium, silver, thallium, cyanide, and bis(2-ethylhexyl)phthalate, were developed due to the reasonable potential of the discharge to

exceed water quality standards for these pollutants. Effluent limitations for pH and temperature have been included to reflect WQO in the Basin Plan, Thermal Plan, and a White Paper, as discussed in section IV.C.5 of this Fact Sheet.

1. Satisfaction of Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4)(a) 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. All effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R4-2006-0081, the previous Order, which was a BMP based permit, and did not include numeric discharge effluent limitations. The current permit has stringent limits. The issuance of this permit, therefore, is consistent with the State's antibacksliding requirements.

2. Satisfaction of Antidegradation Policy

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 No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies.

This Order does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment. The final limitations in this Order meet the requirements of the SIP and hold the Discharger to performance levels that will not cause or contribute to water quality impairment. The inclusion of the effluent limitations and prohibitions in this Order ensure that the discharge will not result in the lowering of water quality. The requirements support the conclusion that no degradation will arise as a result of issuing this Order. Hence, the permitted discharge is consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD, oil and grease, TSS, and settleable solids. Restrictions on these pollutants are discussed in section IV of the Fact Sheet. This Order's technology-based pollutant restrictions for CAFO, implement the minimum, applicable federal technology-based requirements per 40 C.F.R. sections 412.12, 412.13, and 412.14 for the CAFO production areas.

The SWPPP, BMPP, and SCP will also serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs for the non-CAFO areas, in order to carry out the purposes and intent of the CWA.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the

applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the SIP, which was approved by U.S. EPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by U.S. EPA prior to May 30, 2000. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Table F-9 Summary of Final Effluent Limitations

Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations	Basis[1]
				Maximum Daily	
pH	All	--	s.u.	6.5 – 8.5[2]	BP
Temperature	All	--	ºF	86	TP, BPJ
Settleable Solids	All	--	ml/L	0.3	BPJ
BOD_5 @ 20°C	All	--	mg/L	30	BPJ
	001	1.33	lbs/day	323	
	002-003	0.11	lbs/day	28	
	004	0.85	lbs/day	213	
	005-006	0.06	lbs/day	15	
	007	0.07	lbs/day	18	
	008	0.02	lbs/day	5	
	009	0.07	lbs/day	18	
	010	0.35	lbs/day	88	
	011	0.09	lbs/day	23	
	012	0.4	lbs/day	100	
	013	3.11	lbs/day	778	
	014[3]	1.26	lbs/day	315	
	015[3]	2.92	lbs/day	731	
TSS	All	--	mg/L	75	BPJ
	001	1.33	lbs/day	832	
	002 - 003	0.11	lbs/day	69	
	004	0.85	lbs/day	532	
	005 - 006	0.06	lbs/day	38	
	007	0.07	lbs/day	44	
	008	0.02	lbs/day	13	
	009	0.07	lbs/day	44	
	010	0.35	lbs/day	219	
	011	0.09	lbs/day	56	
	012	0.4	lbs/day	250	

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations	Basis[1]
				Maximum Daily	
TSS	013	3.11	lbs/day	1945	BPJ
	014[3]	1.26	lbs/day	788	
	015[3]	2.92	lbs/day	1827	
Oil and Grease	All	--	mg/L	15	BPJ
	001	1.33	lbs/day	166	
	002-003	0.11	lbs/day	14	
	004	0.85	lbs/day	106	
	005 - 006	0.06	lbs/day	8	
	007	0.07	lbs/day	9	
	008	0.02	lbs/day	3	
	009	0.07	lbs/day	9	
	010	0.35	lbs/day	44	
	011	0.09	lbs/day	11	
	012	0.4	lbs/day	50	
	013	3.11	lbs/day	389	
	014[3]	1.26	lbs/day	158	
	015[3]	2.92	lbs/day	365	
Ammonia as Nitrogen[5]	All	--	mg/L	8.7	TMDL
	001	1.33	lbs/day	97	
	002 - 003	0.11	lbs/day	8	
	004	0.85	lbs/day	62	
	005 - 006	0.06	lbs/day	4	
	007	0.07	lbs/day	5	
	008	0.02	lbs/day	1	
	009	0.07	lbs/day	5	
	010	0.35	lbs/day	25	
	011	0.09	lbs/day	7	
	012	0.4	lbs/day	29	
	013	3.11	lbs/day	226	
	014[3]	1.26	lbs/day	92	
	015[3]	2.92	lbs/day	212	

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations	Basis[1]
				Maximum Daily	
Antimony	004, 012	--	µg/L	6	CTR
	004	0.85	lbs/day[2]	0.04	
	012	0.4	lbs/day[2]	0.02	
Arsenic	001, 002-003, 004, 005-006, 007, 008, 009, 013, 014, 015	--	µg/L	10	CTR
	001	1.33	lbs/day[2]	0.1	
	002-003	0.11	lbs/day[2]	0.009	
	004	0.85	lbs/day[2]	0.07	
	005-006	0.06	lbs/day[2]	0.005	
	007	0.07	lbs/day[2]	0.006	
	008	0.02	lbs/day[2]	0.002	
	009	0.07	lbs/day[2]	0.006	
	013	3.11	lbs/day[2]	0.3	
	014	1.26	lbs/day[2]	0.1	
	015	2.92	lbs/day[2]	0.2	
Beryllium	004, 007, 013	--	µg/L	4	CTR
	004	0.85	lbs/day[2]	0.03	
	007	0.07	lbs/day[2]	0.002	
	013	3.11	lbs/day[2]	0.1	
Cadmium, Total Recoverable (Wet Weather)	All	--	µg/L	3.1	TMDL
	001	1.33	lbs/day	0.03	
	002 - 003	0.11	lbs/day	0.003	
	004	0.85	lbs/day	0.02	
	005 - 006	0.06	lbs/day	0.002	
	007	0.07	lbs/day	0.002	
	008	0.02	lbs/day	0.0005	
	009	0.07	lbs/day	0.002	
	010	0.35	lbs/day	0.01	
	011	0.09	lbs/day	0.002	
	012	0.4	lbs/day	0.01	
	013	3.11	lbs/day	0.08	
	014[3]	1.26	lbs/day	0.03	
	015[3]	2.92	lbs/day	0.08	

TENTATIVE

Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations	Basis[1]
				Maximum Daily	
Cadmium, Total Recoverable (Dry Weather based on CTR criteria)	002-003, 004, 005-006, 007, 010, 013, 014, 015	--	µg/L	2.5	CTR
	002-003	0.11	lbs/day	0.002	
	004	0.85	lbs/day	0.02	
	005-006	0.06	lbs/day	0.001	
	007	0.07	lbs/day	0.001	
	010	0.35	lbs/day	0.007	
	013	3.11	lbs/day	0.06	
	014[3]	1.26	lbs/day	0.03	
	015[3]	2.92	lbs/day	0.06	
Chromium III, Total Recoverable	002-003, 004,005-006, 007, 013, 014, 015	--	µg/L	224	CTR
	002-003	0.11	lbs/day	0.2	
	004	0.85	lbs/day	1.6	
	005-006	0.06	lbs/day	0.1	
	007	0.07	lbs/day	0.1	
	013	3.11	lbs/day	5.8	
	014[3]	1.26	lbs/day	2.2	
	015[3]	2.92	lbs/day	5.5	
Chromium VI, Total Recoverable	001, 002-003, 004, 005-006, 007, 013, 014, 015	--	µg/L	16.3	CTR
	001	1.33	lbs/day	0.2	
	002-003	0.11	lbs/day	0.02	
	004	0.85	lbs/day	0.1	
	005-006	0.06	lbs/day	0.008	
	007	0.07	lbs/day	0.01	
	013	3.11	lbs/day	0.4	
	014[3]	1.26	lbs/day	0.2	
	015[3]	2.92	lbs/day	0.4	

TENTATIVE

Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations	Basis[1]
				Maximum Daily	
Copper, Total Recoverable (Wet Weather)	All	--	µg/L	67.5	TMDL
	001	1.33	lbs/day	0.7	
	002-003	0.11	lbs/day	0.06	
	004	0.85	lbs/day	0.5	
	005-006	0.06	lbs/day	0.03	
	007	0.07	lbs/day	0.04	
	008	0.02	lbs/day	0.01	
	009	0.07	lbs/day	0.04	
	010	0.35	lbs/day	0.2	
	011	0.09	lbs/day	0.05	
	012	0.4	lbs/day	0.2	
	013	3.11	lbs/day	1.7	
	014[3]	1.26	lbs/day	0.7	
	015[3]	2.92	lbs/day	1.6	
Copper, Total Recoverable (Dry Weather based on CTR criteria)	All	--	µg/L	8.7	CTR
	001	1.33	lbs/day	0.1	
	002-003	0.11	lbs/day	0.01	
	004	0.85	lbs/day	0.06	
	005-006	0.06	lbs/day	0.004	
	007	0.07	lbs/day	0.005	
	008	0.02	lbs/day	0.001	
	009	0.07	lbs/day	0.005	
	010	0.35	lbs/day	0.03	
	011	0.09	lbs/day	0.007	
	012	0.4	lbs/day	0.03	
	013	3.11	lbs/day	0.2	
	014[3]	1.26	lbs/day	0.1	
	015[3]	2.92	lbs/day	0.2	
Lead, Total Recoverable (Wet Weather)	All	--	µg/L	62	TMDL
	001	1.33	lbs/day	0.7	
	002 - 003	0.11	lbs/day	0.06	

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations	Basis[1]
				Maximum Daily	
Lead, Total Recoverable (Wet Weather)	004	0.85	lbs/day	0.4	TMDL
	005 - 006	0.06	lbs/day	0.03	
	007	0.07	lbs/day	0.04	
	008	0.02	lbs/day	0.01	
	009	0.07	lbs/day	0.04	
	010	0.35	lbs/day	0.2	
	011	0.09	lbs/day	0.05	
	012	0.4	lbs/day	0.2	
	013	3.11	lbs/day	1.6	
	014[3]	1.26	lbs/day	0.7	
	015[3]	2.92	lbs/day	1.5	
Lead, Total Recoverable (Dry Weather based on CTR criteria)	All	--	µg/L	2.7	CTR
	001	1.33	lbs/day	0.03	
	002 - 003	0.11	lbs/day	0.003	
	004	0.85	lbs/day	0.02	
	005 - 006	0.06	lbs/day	0.001	
	007	0.07	lbs/day	0.001	
	008	0.02	lbs/day	0.0004	
	009	0.07	lbs/day	0.001	
	010	0.35	lbs/day	0.006	
	011	0.09	lbs/day	0.002	
	012	0.4	lbs/day	0.006	
	013	3.11	lbs/day	0.07	
	014[3]	1.26	lbs/day	0.03	
	015[3]	2.92	lbs/day	0.06	
Mercury, Total Recoverable	001, 002-003, 004, 005-006, 007, 009, 010, 011, 012, 013, 014, 015	--	µg/L	0.1	CTR
	001	1.33	lbs/day	0.001	
	002-003	0.11	lbs/day	0.0001	
	004	0.85	lbs/day	0.0007	
	005-006	0.06	lbs/day	0.00005	
	007	0.07	lbs/day	0.00006	
	009	0.07	lbs/day	0.00006	
	010	0.42	lbs/day	0.0004	

TENTATIVE

Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations	Basis[1]
				Maximum Daily	
Mercury, Total Recoverable	011	0.09	lbs/day	0.00008	CTR
	012	0.4	lbs/day	0.0003	
	013	3.11	lbs/day	0.003	
	014[3]	1.26	lbs/day	0.001	
	015[3]	2.92	lbs/day	0.003	
Nickel, Total Recoverable	002-003, 004, 005-006, 007, 009, 013, 014, 015	--	µg/L	56	CTR
	002-003	0.11	lbs/day	0.05	
	004	0.85	lbs/day	0.4	
	005-006	0.06	lbs/day	0.03	
	007	0.07	lbs/day	0.03	
	009	0.07	lbs/day	0.03	
	013	3.11	lbs/day	1.5	
	014[3]	1.26	lbs/day	0.6	
	015[3]	2.92	lbs/day	1.4	
Selenium, Total Recoverable	002-003, 004, 005-006, 007, 011,012, 013, 014	--	µg/L	8.2	CTR
	002-003	0.11	lbs/day	0.008	
	004	0.85	lbs/day	0.06	
	005-006	0.06	lbs/day	0.004	
	007	0.07	lbs/day	0.005	
	011	0.09	lbs/day	0.006	
	012	0.4	lbs/day	0.03	
	013	3.11	lbs/day	0.2	
	014[3]	1.26	lbs/day	0.09	
Silver, Total Recoverable	004, 005-006, 007, 014	--	µg/L	1.7	CTR
	004	0.85	lbs/day	0.009	
	005-006	0.06	lbs/day	0.0009	
	007	0.07	lbs/day	0.0009	
	014[3]	1.26	lbs/day	0.02	

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations	Basis[1]
				Maximum Daily	
Thallium	005-006, 007, 011, 012, 015	--	µg/L	2	CTR
	005-006	0.06	lbs/day	0.001	
	007	0.07	lbs/day	0.001	
	011	0.09	lbs/day	0.002	
	012	0.4	lbs/day	0.006	
	015[3]	2.92	lbs/day	0.05	
Zinc, Total Recoverable (Wet Weather)	All	--	µg/L	159	TMDL
	001	1.33	lbs/day	1.8	
	002 - 003	0.11	lbs/day	0.2	
	004	0.85	lbs/day	1.1	
	005 - 006	0.06	lbs/day	0.08	
	007	0.07	lbs/day	0.09	
	008	0.02	lbs/day	0.03	
	009	0.07	lbs/day	0.09	
	010	0.42	lbs/day	0.6	
	011	0.09	lbs/day	0.1	
	012	0.4	lbs/day	0.5	
	013	3.11	lbs/day	4.1	
	014[3]	1.26	lbs/day	1.7	
	015[3]	2.92	lbs/day	3.9	
Zinc, Total Recoverable (Dry Weather based on CTR criteria)	All	--	µg/L	77.7	CTR
	001	1.33	lbs/day	0.9	
	002 - 003	0.11	lbs/day	0.07	
	004	0.85	lbs/day	0.6	
	005 - 006	0.06	lbs/day	0.04	
	007	0.07	lbs/day	0.05	
	008	0.02	lbs/day	0.01	
	009	0.07	lbs/day	0.05	
	010	0.42	lbs/day	0.3	
	011	0.09	lbs/day	0.06	
	012	0.4	lbs/day	0.3	
Zinc, Total Recoverable (Dry Weather based on CTR criteria)	013	3.11	lbs/day	2	CTR
	014[3]	1.26	lbs/day	0.8	
	015[3]	2.92	lbs/day	1.9	
Bis(2-ethylhexyl) phthalate	001, 004, 005-006, 007, 009, 011, 012, 013, 014, 015	--	µg/L	4	CTR

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Parameter	Discharge Points	Peak Flow (MGD)	Units	Effluent Limitations	Basis[1]
				Maximum Daily	
Bis(2-ethylhexyl) phthalate	001	1.33	lbs/day	0.03	CTR
	004	0.85	lbs/day	0.03	
	005-006	0.06	lbs/day	0.002	
	007	0.07	lbs/day	0.002	
	009	0.07	lbs/day	0.002	
	011	0.09	lbs/day	0.003	
	012	0.4	lbs/day	0.01	
	013	3.11	lbs/day	0.1	
	014[3]	1.26	lbs/day[3]	0.03	
	015[3]	2.92	lbs/day	0.1	
Cyanide	005-006, 008	--	µg/L	8.5	CTR
	005-006	0.06	lbs/day	0.004	
	008	0.02	lbs/day	0.001	
Fecal Coliform	All	--	MPN/100ml	[4]	BP
E. coli	All	--	CFU/100 ml or MPN/100 ml	[5]	TMDL
Chronic Toxicity[6]	All	--	Pass or Fail, % Effect	Pass or % Effect <50	BP

[1] BP = Basin Plan; TP = Thermal Plan; BPJ = Best professional judgment; ELG=CAFO Effluent Limitation Guidelines; TMDL= Los Angeles River and Tributaries Metals TMDL (Resolution R07-014); CTR=California Toxics Rule.

[2] Instantaneous minimum and maximum range.

[3] Effluent limitations established at Outfalls 014 and 015 are applicable to discharges from the production areas. The discharges only occur when rainfall events cause an overflow of collected storm water from a facility designed, constructed, operated, and maintained to contain all CAFO runoff from a 25-year, 24-hour rainfall event.

[4] The single sample fecal coliform concentration shall not exceed 400/100ml and the geometric mean limit shall not exceed 200/100ml. The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

[5] The single sample E. coli concentration shall not exceed 235/100ml and the geometric mean limit shall not exceed 126/100ml. The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

[6] The maximum daily effluent limitation (MDEL) is exceeded when a toxicity test results in a "fail," and the percent effect is greater than or equal to 0.50.

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4. Mass-based Effluent Limitations

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

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

E. Interim Effluent Limitations

Not Applicable

F. Land Discharge Specifications

If the Discharger does not land apply manure, the Discharger is required to submit a statement with each annual self-monitoring report confirming that Santa Anita did not land-apply any manure or wastewater during that year.

If the Discharger wishes to land-apply manure or process wastewater, the Discharger shall notify the Regional Board and comply with the requirements enumberated in the NMP in accordance with 40 CFR 122.42(e), and in compliance with the NMP requirements set forth in Attachment J to the Permit.

G. Reclamation Specifications

Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (section 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan. If there is reasonable potential or a U.S. EPA approved TMDL WLA, the WQBELs are included in this Order to ensure protection of water quality standards.

B. Groundwater

Not Applicable.

VI. 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 Los Angeles 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

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implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

Not Applicable.

B. Effluent Monitoring

Monitoring for those pollutants expected to be present and for which effluent limitations exist are established in the MRP.

1. CAFO Production Area Monitoring

a. CAFO Production Area Compliance and Characterization Monitoring

Monitoring once per discharge event for all pollutants with effluent limitations to determine compliance.

Monitoring once per discharge event for phenols, residual chlorine, and detergents (as MBAS) is required to determine the presence of these pollutants in the discharges.

According to the SIP, the Discharger is required to monitor the effluent periodically for the CTR priority pollutants, to determine reasonable potential. Accordingly, the Discharger is required to conduct effluent monitoring of the CTR priority pollutants annually.

b. Non-CAFO Area Compliance and Characterization Monitoring

Monitoring once per discharge event at all discharge points draining non-CAFO areas is required for all pollutants with effluent limitations to determine compliance.

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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. Chronic toxicity test measures mortality, reproduction, and growth. For this permit, chronic toxicity in the discharge is limited and evaluated using U.S. EPA's 2010 TST statistical approach.

D. Receiving Water Monitoring

1. Surface Water

The Regional Water Board is requiring that the Discharger conduct upstream receiving water monitoring for the CTR priority pollutants at Monitoring Location RSW-001. Further, the Discharger must analyze temperature, pH, and hardness of the upstream receiving water at the same time as the samples are collected for priority pollutant analysis.

This Order includes receiving water limitations and therefore, monitoring requirements are included in the MRP (Attachment E) to determine compliance with the receiving water limitations established in the Limitations and Discharge Requirements. The Facility is also required to perform general observations of the receiving water when discharges occur and report the observations in the monitoring report. Attention shall be given to the presence or

absence of: floating or suspended matter, discoloration, aquatic life, visible film, sheen or coating, and fungi, slime, objectionable growths, or odors.

The Discharger is required to report the maximum daily flow in the Los Angeles River, at the Los Angeles County Department of Public Works' Willow Street Gage Station at Wardlow. The daily flow data at Wardlow station is posted on the Department of Public Works, Los Angeles County web site at http://ladpw.org/wrd/report/0506/runoff/. This information is necessary to determine if the wet-weather and dry-weather condition of the river, as defined in the Los Angeles River Metals TMDL, is the condition during discharges from the facility.

2. Groundwater

Not Applicable

E. Other Monitoring Requirements

1. Storm Water Monitoring

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

2. Recordkeeping and Inspection Requirements – CAFO Production Area Monitoring

The existing MRP required Santa Anita to conduct inspections of the outfalls and diversion systems, and to maintain a permanent log to document the inspections and material removal practices. These requirements are included in this Order; which are described below. Additional requirements have also been established in this Order per the CAFO and NPDES requirements (including in 40 C.F.R. sections 122.42(e)(2), 412.37(b), and/or 412.47), which are also described below.

(a) A copy of the Facility's NMP must be maintained on-site and made available upon request.

(b) The Discharger is required to inspect all outfalls during the dry season (May through September) once per 2 weeks to determine if dry weather discharges are not occurring from the CAFO production areas.

(c) The Discharger is required to inspect all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water weekly. Any deficiency shall be corrected as soon as possible.

(d) The Discharger shall inspect all manure, litter and process wastewater storage facilities weekly. If the Discharger constructs any open surface liquid impoundments that are located on the Facility, the impoundments must have a depth marker which clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event.

(f) The Discharger must conduct wet season (October through April) observations of all storm water locations in the non-production areas during the first hour of the first storm

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event of the wet season, that produces significant storm water discharge (continuous discharge of storm water for one hour or more) to observe the presence of floating and suspended materials, discolorations, turbidity, odor, etc.

(g) A permanent log shall be maintained for the inspections required and for waste bedding being hauled off-site.

(i) The Discharger is required to measure and record the rainfall each day of the month.

(k) The Discharger must maintain on-site, for a period of 5 years from the date they were created, all records required by this Order to include:

(i) Records documenting all inspections;

(ii) Weekly records of depth of manure and process wastewater as indicated by a depth marker, where appropriate;

(iii) Records documenting any actions taken to correct deficiencies found during inspections of the CAFO facility;

(iv) Mortalities must be handled in such a way as to prevent the discharge of pollutants to surface water and records of mortalities management must be maintained;

(v) Records documenting the current design of any manure or litter storage structures, including volumes for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity;

(vi) Records of the date, time and estimated volume of any overflow of process water to surface waters; and

(vii) Records of the date, recipient name, and address, and approximate amount of manure litter, and process wastewater transferred to another person.

(l) Prior to transferring manure, litter, or process wastewater to other persons, the Discharger must provide the recipient with the most current nutrient analysis and this analysis must be consistent with the requirements in 40 C.F.R. part 412.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions

that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

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

2. Special Studies and Additional Monitoring Requirements

a. **Initial Investigation Toxicity Reduction Evaluation Workplan.** This provision is based on section 4 of the SIP, Toxicity Control Provisions, which establishes minimum toxicity control requirements for implementing the narrative toxicity objective for aquatic life protection established in the basin plans of the State of California.

3. Best Management Practices and Pollution Prevention

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 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. SWPPP requirements are included as Attachment G, based on 40 CFR 122.44(k).

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

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.

4. Nutrient Management Plans (NMP)

The Discharger, since the facility is categorized as a CAFO, as per 40 C.F.R. Part 122.42(e) must implement a NMP. The NMP must be adequate for the existing number of animals. The NMP must conform to the United States Department of Agriculture Natural Resources

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Conservation Service (NRCS) Field Office Technical Guide (FOTG) or equivalent best management practices.

5. Pollutant Minimization Program

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) to maintain effluent concentrations of cadmium, copper, lead, zinc, nickel, selenium, chromium (III), chromium (VI), mercury, silver, pentachlorophenol, and aldrin as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

A sample result is reported as DNQ and the effluent limitation is less than the reporting limit (RL); or

A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

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

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

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

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

d. An annual status report that shall be sent to the Regional Water Board including that shall be sent to the Regional Water Board at the same time the annual summary report is submitted in accordance with section X.C of the MRP (Attachment E) and include:

    i. All PMP monitoring results for the previous year;

    ii. A list of potential sources of the reportable priority pollutant(s)— cadmium, copper, lead, zinc, nickel, selenium, chromium (III), chromium (VI), mercury, silver, thallium, and pentachlorophenol;

    iii. A summary of all actions undertaken pursuant to the control strategy; and

    iv. A description of actions to be taken in the following year.

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4. Construction, Operation, and Maintenance Specifications

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

5. Special Provisions for Municipal Facilities (POTWs Only)

Not Applicable

6. Other Special Provisions

Not Applicable

7. Compliance Schedules

Not Applicable

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Los Angeles Turf Club – Santa Anita Park. As a step in the WDR/NPDES permit adoption process, the Regional Water Board staff developed a tentative WDR and NPDES permit, and released it for comment to the public (see section C below). The Regional Water Board encourages public participation in the WDR/NPDES permit adoption process.

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A. Notification of Interested Parties

The Los Angeles Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs/a NPDES permit for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through a local newspaper, electronic mailing and posting on the Los Angeles Water Board Website. The public had access to the agenda and any changes in dates and locations through the Los Angeles 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 WDR/NPDES permit as provided through the notification process electronically at losangeles@waterboards.ca.gov with a copy to mazhar.ali@waterboards.ca.gov.

To be fully responded to by staff and considered by the Los Angeles Water Board, the written comments were due at the Los Angeles Water Board office by 5:00 p.m. on May 24, 2018.

C. Public Hearing

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

Date: June 14, 2018

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

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

You can access the current agenda for changes in dates and locations at http://www.waterboards.ca.gov/losangeles. Please be aware that dates and venues may change.

D. Reconsideration of WDRs / NPDES Permit

Any person aggrieved by this action of the Los Angeles Regional Water Board Name 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, 1001 I Street
Sacramento, CA 95812-0100

Or by email at 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, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Los Angeles Water Board by calling 213-576-6600.

F. Register of Interested Persons

Persons Any person interested in being placed on the mailing list for information regarding the WDR's and NPDES permit should contact the Los Angeles 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 Mazhar Ali at (213) 576-6652.

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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 of this Order 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

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 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.

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

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

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

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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.

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.

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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.

[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 (CERLCA); 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.

VI. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES

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

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

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

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

4. **Significant Spills and Leaks.** Describe materials that have spilled or leaked in significant quantities in storm water discharges or 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 authorized non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this Permit.

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

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

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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:

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

3. 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.

TENTATIVE

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.

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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.
4. **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.
5. **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.
6. **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.
7. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.
8. **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.
9. **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.
10. **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.

11. **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 within10 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.

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X. SWPPP GENERAL REQUIREMENTS

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

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

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

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

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

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

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS

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

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

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

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

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Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

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

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

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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

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

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* 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]
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]
10	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	107028	[1]
18	Acrylonitrile	107131	[1]
19	Benzene	71432	[1]
20	Bromoform	75252	[1]
21	Carbon Tetrachloride	56235	[1]
22	Chlorobenzene	108907	[1]
23	Chlorodibromomethane	124481	[1]
24	Chloroethane	75003	[1]
25	2-Chloroethylvinyl Ether	110758	[1]
26	Chloroform	67663	[1]
27	Dichlorobromomethane	75274	[1]
28	1,1-Dichloroethane	75343	[1]
29	1,2-Dichloroethane	107062	[1]
30	1,1-Dichloroethylene	75354	[1]
31	1,2-Dichloropropane	78875	[1]
32	1,3-Dichloropropylene	542756	[1]
33	Ethylbenzene	100414	[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	108883	[1]
40	1,2-Trans-Dichloroethylene	156605	[1]
41	1,1,1-Trichloroethane	71556	[1]
42	1,12-Trichloroethane	79005	[1]

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CTR Number	Parameter	CAS Number	Analytical Methods
43	Trichloroethylene	79016	[1]
44	Vinyl Chloride	75014	[1]
45	2-Chlorophenol	95578	[1]
46	2,4-Dichlorophenol	120832	[1]
47	2,4-Dimethylphenol	105679	[1]
48	2-Methyl-4,6-Dinitrophenol	534521	[1]
49	2,4-Dinitrophenol	51285	[1]
50	2-Nitrophenol	88755	[1]
51	4-Nitrophenol	100027	[1]
52	3-Methyl-4-Chlorophenol	59507	[1]
53	Pentachlorophenol	87865	[1]
54	Phenol	108952	[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	108601	[1]
68	Bis(2-Ethylhexyl)Phthalate	117817	[1]
69	4-Bromophenyl Phenyl Ether	101553	[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	106467	[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]

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CTR Number	Parameter	CAS Number	Analytical Methods
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]
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-BHC	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	1031078	[1]
115	Endrin	72208	[1]
116	Endrin Aldehyde	7421934	[1]
117	Heptachlor	76448	[1]
118	Heptachlor Epoxide	1024573	[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 CFR Part 136.

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ATTACHMENT J – NUTRIENT MANAGEMENT PLANS (NMP)

A. NMP Elements

All operations covered under this permit must have a current NMP if manure is applied to land. The NMP must be adequate for the existing number of animals.

1. The NMP must conform to the United States Department of Agriculture Natural Resources Conservation Service (NRCS) Field Office Technical Guide (FOTG) or equivalent best management practices (BMPs). Equivalent BMPs may be used by the CAFO if the CAFO shows the practice would result in equal better protection of surface and ground water quality.

2. *Requirements to implement a NMP (40 C.F.R. section 122.42(e)).* At a minimum, a NMP must include best management practices and procedures necessary to implement applicable effluent limitations and standards. The NMP must, to the extent applicable:

a. Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;

b. Ensure proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;

c. Ensure that clean water is diverted, as appropriate, from the production area;

d. Prevent direct contact of confined animals with surface waters of the state;

e. Ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

f. Identify appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent

g. Identify protocols for appropriate testing of manure, litter, process wastewater, and soil;

h. Establish protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater; and

i. Identify specific records that will be maintained to document the implementation and management of the requirements set forth above, in Section A.2.a-h of Attachment J, and to maintain recordkeeping requirements in accordance with 40 C.F.R. section 122.42(e)(2), 412.37(b) and (c), and 412.47(b).

3. The protocols to land apply manure require CAFOs to determine and implement site-specific nutrient application rates that comply with the technical standards for nutrient management. These standards must address the form, source, amount, timing and method of application of nutrient on each field to achieve realistic production goals, while minimizing phosphorus

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and nitrogen transport to waters of the U.S This plan enumerates the requirements. However the Santa Anita Park facility currently does not plan to land apply manure, litter or other process wastewater. This permit does not address land application of manure as contemplated under applicable law, including but not limited to 40 C.F.R. sections 122.42(e)(5) and 412.4(c).

a. *Determination of application rates.* Application rates for manure, litter, and other process wastewater applied to land under the ownership or operational control of the CAFO must minimize phosphorus and nitrogen transport from the field to surface waters.

i. The NMP must include field-specific assessment of the potential for nitrogen and phosphorus transport from the field to surface waters; and address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface and ground waters.

ii. The Facility has the flexibility to implement nutrient management practices to comply with the technical standards, including consideration of multi-year phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water, phased implementation of phosphorus based nutrient management, and other components.

b. *Manure and soil sampling.* Manure must be analyzed a minimum of once annually for nitrogen and phosphorus content. Soil must be analyzed a minimum of once every five years for phosphorus content. The results of these analyses are to be used in determining application rates for manure, litter, and other process wastewater.

c. *Inspect land application equipment for leaks.* The operator must periodically inspect equipment used for land application of manure, litter, or process wastewater.

d. *Setback requirements.* Unless the CAFO exercises one of the compliance alternatives provided for in (d)(i) or (d)(ii) of this section, manure, litter, and process wastewater may not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters.

i. Vegetated buffer compliance alternative. As a compliance alternative, the CAFO may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited.

ii. Alternative practices compliance alternative. As a compliance alternative, the CAFO may demonstrate that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot setback.

4. Recordkeeping Requirements: The Facility must keep records in accordance with the requirements set forth in 40 C.F.R. section 122.42(e)(2), 412.37(b) and (c), and 412.47(b).; [see section VI.E.2. in Permit Fact Sheet] Following is a overview of the types of records that are required.

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a. A copy of the CAFO's site-specific nutrient management plan must be maintained on site and made available upon request.

b. The permittee must create, maintain for five years and make available to the Regional Water Board, upon request, all records that will be maintained to document the implementation and management of the minimum elements in A.2.a. through A.2.i., above.

c. The permittee must submit an annual report which includes:

i. The number and type of animals,
ii. Estimated amount of total manure, litter and process wastewater generated by the CAFO in the previous 12 months (tons/gallons),
iii. Estimated amount of total manure, litter and a process wastewater transferred to other person by the CAFO in the previous 12 months,
iv. Total number of acres for land application covered by the nutrient management plan,
v. Total number of acres under control of the CAFO that were used for land application of manure, litter or process wastewater in the previous 12 months,
vi. Summary of all manure litter and process wastewater discharges from the production area that have occurred in the previous 12 months including for each discharge, the date of discovery, duration of discharge and approximate volume, and
vii. A statement indicating whether the current version of the CAFO's nutrient management plan was developed by an certified nutrient management planner; and
viii. The actual corps planted and actual yields for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, and the results of calculations conducted and the amount of manure, litter and process wastewater applied to each field during the previous 12 months, and
ix. For any CAFO that implements a nutrient management plan that addresses rates of application the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations and the amount of any supplemental fertilizer applied during the previous 12 months.

B. *NMP Compliance*

Upon approval and certification of a NMP, any operation covered by the NPDES permit must, at all times, comply with all the terms and conditions of the NMP. The land application and/or discharge of any process wastewater more frequently than, at a concentration in excess of, or at times not specified in the NMP shall constitute a violation of the terms and conditions of this permit.

C. *NMP Updates*

If the CAFO owner or operator makes changes to the CAFO's nutrient management plan previously submitted to the Regional Water Board:

1. The CAFO owner or operator must provide to the Regional Board the most current version of the CAFO's nutrient management plan and identify changes from the previous version.
2. Staff will review the revised nutrient management plan to ensure that it meets the requirements and applicable effluent limitations and standards and determine if the changes necessitates changes to the permit.

3. If the changes to the nutrient management plan are not considered substantial, the Regional Water Board will make the revised nutrient management plan publicly available and include it in the public record, revise the terms of the nutrient management plan incorporated into the permit, and notify the owner/operator and inform the public of any changes to the terms of the NMP.
4. Substantial changes to the NMP include:

    a. Additions of new land application areas not previously included in the CAFO's NMP,
    b. Any change to field-specific maximum annual rates of land application, and to the maximum amounts of nitrogen and phosphorus derived from all sources for each group,
    c. Addition of any crop or other used not included in the terms of the CAFO's NMP,
    d. Changes in the site-specific component of the CAFO's nutrient management plan where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the U.S.

    It the changes to the NMP are substantial, the Director must notify the public and make the proposed changes and the information submitted by the CAFO owner or operator available for public review and comment.

5. The process for public comment, hearing requests and the hearing processes, if a hearing is held must follow the procedures applicable to draft permits. The revised NMP, after comments are received and responded to, will be incorporated in the permit; the owner/operator of the facility, and the public will be notified of the final decision concerning the revisions to the terms and conditions of the permit.

E. *NMP Availability*

CAFOs must keep a copy of their NMP on-site. NMPs must be submitted to the Regional Water Board with the permit application. All updates to the NMP must be submitted to the Regional Water Board within thirty days of the update.

ATTACHMENT K – SUMMARY OF REASONABLE POTENTIAL ANALYSIS (RPA)

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L) Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	LA River TMDL Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	2.7			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	21	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	0.3			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	0.5	2.54	1.65	Narrative	5.00			1.65	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	0.5						3.10	3.10	No	No	N	No	Ud;MEC<C & no B		2.01	
5a	Chromium (III)	ug/L	0.6	62	1142.84	136.22	Narrative				136.22	No	No	N	No	Ud;MEC<C & no B			
5b	Chromium (VI)	ug/L	0.6	45.8	16.29	11.43	Narrative				11.43	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (Dry Weather)	ug/L	0.6	85	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	15.2	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	15.2						62.00	62.00	No	No	N	No	Ud;MEC<C & no B		2.01	
8	Mercury	ug/L	0.6	0.19	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	24	304.54	33.86	4600.00	100.00			33.86	No	No	N	No	Ud;MEC<C & no B			
10	Selenium	ug/L	0.6	3	20.00	5.00	Narrative	50.00			5.00	No	No	N	No	Ud;MEC<C & no B			
11	Silver	ug/L	0.6	0.2	1.69						1.69	No	No	N	No	Ud;MEC<C & no B			
12	Thallium	ug/L	0.6	0.339			6.30	2.00			2.00	No	No	N	No	Ud;MEC<C & no B			
13	Zinc (Dry Weather)	ug/L	0.6	2220	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	2220						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	0.005	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6					7.0			7.00			N	No	UD;Effluent ND,MDL>C & No			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6				42	5			5.0			N	No	UD;Effluent ND,MDL>C & No			
43	Trichloroethylene	ug/L	0.6	2			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		11.79	9.05	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	Lowest AMEL	Lowest MDEL		
1	Antimony												No Limit	
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)												No Limit	
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)												No Limit	
5b	Chromium (VI)	0.32	5.23	0.53	6.03	5.23	1.55	8.12	3.11	16.29	–	16.3	CTR	CTR Based WQBEL
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel												No Limit	
10	Selenium												No Limit	
11	Silver												No Limit	
12	Thallium												No Limit	
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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) Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	LA River TMDL Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	2			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	6.5			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	2			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	2			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	2			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	2			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	2			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	5			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6				0.046				0.046			N	No	UD;Effluent ND,MDL>C & No			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.1			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	–	4	CTR	CTR Based WQBEL
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L) Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	LA River TMDL Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	1.45			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	60	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	1.83			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	3	2.54	1.65	Narrative	5.00			1.65	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	3						3.10	3.10	No	No	N	No	Ud;MEC<C & no B		2.01	
5a	Chromium (III)	ug/L	0.6	295	1142.84	136.22	Narrative				136.22	Yes	Yes	N	Yes	MEC>=C		2.01	
5b	Chromium (VI)	ug/L	0.6	111	16.29	11.43	Narrative				11.43	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (Dry Weather)	ug/L	0.6	156	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	113	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	113						62.00	62.00	Yes	Yes	N	Yes	MEC>=C		2.01	
8	Mercury	ug/L	0.6	0.52	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	113	304.54	33.86	4600.00	100.00			33.86	Yes	Yes	N	Yes	MEC>=C	4600	2.01	9228
10	Selenium	ug/L	0.6	39	20.00	5.00	Narrative	50.00			5.00	Yes	Yes	N	Yes	MEC>=C		2.01	
11	Silver	ug/L	0.6	0.286	1.69						1.69	No	No	N	No	Ud;MEC<C & no B			
12	Thallium	ug/L	0.6	0.416			6.30	2.00			2.00	No	No	N	No	Ud;MEC<C & no B			
13	Zinc (Dry Weather)	ug/L	0.6	1490	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	1490						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	0.005	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6					7.0			7.00			N	Ud	No effluent data & no B			
17	Acrolein	ug/L	0.6	100			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6				0.66				0.660			N	No	UD;Effluent ND,MDL>C & No			
19	Benzene	ug/L	0.6				71	1			1.0			N	No	UD;Effluent ND,MDL>C & No			
20	Bromoform	ug/L	0.6	5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6				46	5			5.00			N	No	UD;Effluent ND,MDL>C & No			
28	1,1-Dichloroethane	ug/L	0.6					5.00			5.00			N	No	UD;Effluent ND,MDL>C & No			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6				3.2	6.0			3.200			N	No	UD;Effluent ND,MDL>C & No			
31	1,2-Dichloropropane	ug/L	0.6				39	5			5.00			N	No	UD;Effluent ND,MDL>C & No			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6				11	1			1.00			N	No	UD;Effluent ND,MDL>C & No			
38	Tetrachloroethylene	ug/L	0.6				8.85	5.00			5.0			N	No	UD;Effluent ND,MDL>C & No			
39	Toluene	ug/L	0.6	5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6				140000	10			10			N	Ud	No effluent data & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6				42	5			5.0			N	No	UD;Effluent ND,MDL>C & No			
43	Trichloroethylene	ug/L	0.6				81	5			5.0			N	No	UD;Effluent ND,MDL>C & No			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	50			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	20			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	20			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	50			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	50			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		5.84	4.48	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	50			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6				6.5				6.5			N	No	UD;Effluent ND,MDL>C & No			
56	Acenaphthene	ug/L	0.6	23			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	20			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS Saltwater / Freshwater / Basin Plan									LIMITS		Recommendation	Comment
		ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL		
1	Antimony												No Limit	
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)	0.32	0.82	0.53	0.87	0.82	1.55	1.27	3.11	2.54	–	2.5	CTR	CTR Based WQBEL
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)	0.32	366.95	0.53	71.85	71.85	1.55	111.54	3.11	223.76	–	224	CTR	CTR Based WQBEL
5b	Chromium (VI)	0.32	5.23	0.53	6.03	5.23	1.55	8.12	3.11	16.29	–	16.3	CTR	CTR Based WQBEL
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel	0.32	32.11	0.53	17.86	17.86	1.55	27.72	3.11	55.61972	–	56	CTR	CTR Based WQBEL
10	Selenium	0.32	6.42	0.53	2.64	2.64	1.55	4.09	3.11	8.213345	–	8.2	CTR	CTR Based WQBEL
11	Silver												No Limit	
12	Thallium												No Limit	
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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) Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	LA River TMDL Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	20			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6				5.9	4.0			4.0			N	No	UD;Effluent ND,MDL>C & No			
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	20			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	20			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	20			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	20			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6				2600	5			5			N	No	UD;Effluent ND,MDL>C & No			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	20			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	20			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	20			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6				9.10				9.10			N	No	UD;Effluent ND,MDL>C & No			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	20			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	20			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	10			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	20			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6				8.9				8.9			N	No	UD;Effluent ND,MDL>C & No			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	10			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	20			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6				8.10				8.10000			N	No	UD;Effluent ND,MDL>C & No			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	10			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	20			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6					5.00			5.00			N	No	UD;Effluent ND,MDL>C & No			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6				0.046				0.046			N	No	UD;Effluent ND,MDL>C & No			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6				0.81				0.81			N	No	UD;Effluent ND,MDL>C & No			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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 (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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	470			4300.00	6.00			6.00	Yes	Yes	N	Yes	MEC>=C	4300	2.01	8626.61338
2	Arsenic	ug/L	0.6	69	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	10			Narrative	4.00			4.00	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (Dry Weather)	ug/L	0.6	5	2.54	1.65	Narrative	5.00			1.65	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	5						3.10	3.10	Yes	Yes	N	Yes	MEC>=C		2.01	
5a	Chromium (III)	ug/L	0.6	831	1142.84	136.22	Narrative				136.22	Yes	Yes	N	Yes	MEC>=C		2.01	
5b	Chromium (VI)	ug/L	0.6	174	16.29	11.43	Narrative				11.43	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (Dry Weather)	ug/L	0.6	543	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	138	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	138						62.00	62.00	Yes	Yes	N	Yes	MEC>=C		2.01	
8	Mercury	ug/L	0.6	0.68	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	281	304.54	33.86	4600.00	100.00			33.86	Yes	Yes	N	Yes	MEC>=C	4600	2.01	9228.47012
10	Selenium	ug/L	0.6	20	20.00	5.00	Narrative	50.00			5.00	Yes	Yes	N	Yes	MEC>=C		2.01	
11	Silver	ug/L	0.6	7	1.69						1.69	Yes	Yes	N	Yes	MEC>=C		2.01	
12	Thallium	ug/L	0.6	4			6.30	2.00			2.00	Yes	Yes	N	Yes	MEC>=C	6.3	2.01	12.63899
13	Zinc (Dry Weather)	ug/L	0.6	1490	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	1490						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	1.4	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6					7.0			7.00			N	No	UD;Effluent ND,MDL>C & No			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.41			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6				42	5			5.0			N	No	UD;Effluent ND,MDL>C & No			
43	Trichloroethylene	ug/L	0.6	2			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		10.67	8.18	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS Saltwater / Freshwater / Basin Plan									LIMITS		Recommendation	Comment
		ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL		
1	Antimony	0.32	1.93	0.53		1.93	1.55	2.99	3.11	6	–	6	CTR	CTR Based WQBEL
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4.00	–	4	CTR	CTR Based WQBEL
4	Cadmium (Dry Weather)	0.32	0.82	0.53	0.87	0.82	1.55	1.27	3.11	2.54	–	2.5	CTR	CTR Based WQBEL
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)	0.32	366.95	0.53	71.85	71.85	1.55	111.54	3.11	223.76	–	224	CTR	CTR Based WQBEL
5b	Chromium (VI)	0.32	5.23	0.53	6.03	5.23	1.55	8.12	3.11	16.29	–	16.3	CTR	CTR Based WQBEL
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel	0.32	32.11	0.53	17.86	17.86	1.55	27.72	3.11	55.61972	–	56	CTR	CTR Based WQBEL
10	Selenium	0.32	6.42	0.53	2.64	2.64	1.55	4.09	3.11	8.213345	–	8.2	CTR	CTR Based WQBEL
11	Silver	0.32	0.54	0.53		0.54	1.55	0.84	3.11	1.685855	–	1.7	CTR	CTR Based WQBEL
12	Thallium	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	2	CTR	CTR Based WQBEL
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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) Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	LA River TMDL Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	2			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	7			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	69.2			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	2			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	2			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	2			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	2			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	2.2			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6				0.046				0.046			N	No	UD;Effluent ND,MDL>C & No			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6				0.81				0.81			N	No	UD;Effluent ND,MDL>C & No			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	–	4	CTR	CTR Based WQBEL
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L) Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	LA River TMDL Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	1.43			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	69	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	0.136			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	4	2.54	1.65	Narrative	5.00			1.65	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	4						3.10	3.10	Yes	Yes	N	Yes	MEC>=C		2.01	
5a	Chromium (III)	ug/L	0.6	879	1142.84	136.22	Narrative				136.22	Yes	Yes	N	Yes	MEC>=C		2.01	
5b	Chromium (VI)	ug/L	0.6	878	16.29	11.43	Narrative				11.43	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (Dry Weather)	ug/L	0.6	250	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	117	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	117						62.00	62.00	Yes	Yes	N	Yes	MEC>=C		2.01	
8	Mercury	ug/L	0.6	0.49	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	143	304.54	33.86	4600.00	100.00			33.86	Yes	Yes	N	Yes	MEC>=C	4600	2.01	9228
10	Selenium	ug/L	0.6	12	20.00	5.00	Narrative	50.00			5.00	Yes	Yes	N	Yes	MEC>=C		2.01	
11	Silver	ug/L	0.6	5	1.69						1.69	Yes	Yes	N	Yes	MEC>=C		2.01	
12	Thallium	ug/L	0.6	10			6.30	2.00			2.00	Yes	Yes	N	Yes	MEC>=C	6.3	2.01	12.63899
13	Zinc (Dry Weather)	ug/L	0.6	2800	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	2800						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	44	22.00	5.20	220000.0	150.0			5.20	Yes	Yes	N	Yes	MEC>=C	220000	2.01	441362
15	Asbestos	MFL	0.6					7.0			7.00			N	No	UD;Effluent ND,MDL>C & No			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6	0.5			42	5			5.0	No	No	N	No	Ud;MEC<C & no B			
43	Trichloroethylene	ug/L	0.6	0.5			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		3.19	2.45	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	Lowest AMEL	Lowest MDEL		
1	Antimony												No Limit	
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)	0.32	0.82	0.53	0.87	0.82	1.55	1.27	3.11	2.54	–	2.5	CTR	CTR Based WQBEL
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)	0.32	366.95	0.53	71.85	71.85	1.55	111.54	3.11	223.76	–	224	CTR	CTR Based WQBEL
5b	Chromium (VI)	0.32	5.23	0.53	6.03	5.23	1.55	8.12	3.11	16.29	–	16.3	CTR	CTR Based WQBEL
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel	0.32	32.11	0.53	17.86	17.86	1.55	27.72	3.11	55.61972	–	56	CTR	CTR Based WQBEL
10	Selenium	0.32	6.42	0.53	2.64	2.64	1.55	4.09	3.11	8.213345	–	8.2	CTR	CTR Based WQBEL
11	Silver	0.32	0.54	0.53		0.54	1.55	0.84	3.11	1.685855	–	1.7	CTR	CTR Based WQBEL
12	Thallium	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	2	CTR	CTR Based WQBEL
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide	0.32	7.06	0.53	2.74	2.74	1.55	4.26	3.11	8.541879	–	8.5	CTR	CTR Based WQBEL
15	Asbestos												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)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	2			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	6.8			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	2			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	2			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	0.5			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	0.5			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	0.5			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	2.2			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6	0.005			0.046				0.046	No	No	N	No	Ud;MEC<C & no B			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.01			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	–	4	CTR	CTR Based WQBEL
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L) Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	LA River TMDL Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	1.11			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	32.3	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	7.94			Narrative	4.00			4.00	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (Dry Weather)	ug/L	0.6	1.82	2.54	1.65	Narrative	5.00			1.65	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	1.82						3.10	3.10	No	No	N	No	Ud;MEC<C & no B		2.01	
5a	Chromium (III)	ug/L	0.6	545	1142.84	136.22	Narrative				136.22	Yes	Yes	N	Yes	MEC>=C		2.01	
5b	Chromium (VI)	ug/L	0.6	545	16.29	11.43	Narrative				11.43	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (Dry Weather)	ug/L	0.6	378	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	109	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	109						62.00	62.00	Yes	Yes	N	Yes	MEC>=C		2.01	
8	Mercury	ug/L	0.6	0.35	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	200	304.54	33.86	4600.00	100.00			33.86	Yes	Yes	N	Yes	MEC>=C	4600	2.01	9228.47012
10	Selenium	ug/L	0.6	10	20.00	5.00	Narrative	50.00			5.00	Yes	Yes	N	Yes	MEC>=C		2.01	
11	Silver	ug/L	0.6	4	1.69						1.69	Yes	Yes	N	Yes	MEC>=C		2.01	
12	Thallium	ug/L	0.6	10			6.30	2.00			2.00	Yes	Yes	N	Yes	MEC>=C	6.3	2.01	12.63899
13	Zinc (Dry Weather)	ug/L	0.6	1230	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	1230						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	2.6	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6					7.0			7.00			N	Ud	No effluent data & no B			
17	Acrolein	ug/L	0.6	10			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6				0.66				0.660			N	No	UD;Effluent ND,MDL>C & No			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6				42	5			5.0			N	No	UD;Effluent ND,MDL>C & No			
43	Trichloroethylene	ug/L	0.6	2			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	50			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	20			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	20			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	50			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	50			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		4.77	3.66	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	50			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6				6.5				6.5			N	No	UD;Effluent ND,MDL>C & No			
56	Acenaphthene	ug/L	0.6	12			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	20			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	Lowest AMEL	Lowest MDEL		
1	Antimony												No Limit	
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4.00	–	4	CTR	CTR Based WQBEL
4	Cadmium (Dry Weather)	0.32	0.82	0.53	0.87	0.82	1.55	1.27	3.11	2.54	–	2.5	CTR	CTR Based WQBEL
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)	0.32	366.95	0.53	71.85	71.85	1.55	111.54	3.11	223.76	–	224	CTR	CTR Based WQBEL
5b	Chromium (VI)	0.32	5.23	0.53	6.03	5.23	1.55	8.12	3.11	16.29	–	16.3	CTR	CTR Based WQBEL
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel	0.32	32.11	0.53	17.86	17.86	1.55	27.72	3.11	55.61972	–	56	CTR	CTR Based WQBEL
10	Selenium	0.32	6.42	0.53	2.64	2.64	1.55	4.09	3.11	8.213345	–	8.2	CTR	CTR Based WQBEL
11	Silver	0.32	0.54	0.53		0.54	1.55	0.84	3.11	1.685855	–	1.7	CTR	CTR Based WQBEL
12	Thallium	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	2	CTR	CTR Based WQBEL
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	20			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	7.9			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	20			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	20			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	20			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	20			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6				2600	5			5			N	No	UD;Effluent ND,MDL>C & No			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	20			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	20			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	20			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6				9.10				9.10			N	No	UD;Effluent ND,MDL>C & No			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	20			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	20			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	10			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	20			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6				8.9				8.9			N	No	UD;Effluent ND,MDL>C & No			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	10			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	10			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6				8.10				8.10000			N	No	UD;Effluent ND,MDL>C & No			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	10			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	20			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6					5.00			5.00			N	No	UD;Effluent ND,MDL>C & No			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6				0.046				0.046			N	No	UD;Effluent ND,MDL>C & No			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6				0.81				0.81			N	No	UD;Effluent ND,MDL>C & No			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	–	4	CTR	CTR Based WQBEL
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	2.2			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	11	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	0.8			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	0.9	2.54	1.65	Narrative	5.00			1.65	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	0.9						3.10	3.10	No	No	N	No	Ud;MEC<C & no B		2.01	
5a	Chromium (III)	ug/L	0.6	45	1142.84	136.22	Narrative				136.22	No	No	N	No	Ud;MEC<C & no B			
5b	Chromium (VI)	ug/L	0.6	0.05	16.29	11.43	Narrative				11.43	No	No	N	No	Ud;MEC<C & no B			
6	Copper (Dry Weather)	ug/L	0.6	99	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	36	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	36						62.00	62.00	No	No	N	No	Ud;MEC<C & no B		2.01	
8	Mercury	ug/L	0.6	0.0004	Reserved	Reserved	0.05	2.00			0.05	No	No	N	No	Ud;MEC<C & no B			
9	Nickel	ug/L	0.6	33	304.54	33.86	4600.00	100.00			33.86	No	No	N	No	Ud;MEC<C & no B			
10	Selenium	ug/L	0.6	2	20.00	5.00	Narrative	50.00			5.00	No	No	N	No	Ud;MEC<C & no B			
11	Silver	ug/L	0.6	0.3	1.69						1.69	No	No	N	No	Ud;MEC<C & no B			
12	Thallium	ug/L	0.6	0.3			6.30	2.00			2.00	No	No	N	No	Ud;MEC<C & no B			
13	Zinc (Dry Weather)	ug/L	0.6	5100	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	5100						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	36	22.00	5.20	220000.0	150.0			5.20	Yes	Yes	N	Yes	MEC>=C	220000	2.01	441362
15	Asbestos	MFL	0.6	0.18				7.0			7.00	No	No	N	No	Ud;MEC<C & no B			
17	Acrolein	ug/L	0.6	5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6				0.66				0.660			N	No	UD;Effluent ND,MDL>C & No			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6	0.5			42	5			5.0	No	No	N	No	Ud;MEC<C & no B			
43	Trichloroethylene	ug/L	0.6	0.5			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	10			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	10			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	10			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	10			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		8.72	6.69	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	10			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6				6.5				6.5			N	No	UD;Effluent ND,MDL>C & No			
56	Acenaphthene	ug/L	0.6	10			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	10			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	Lowest AMEL	Lowest MDEL		
1	Antimony												No Limit	
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)												No Limit	
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)												No Limit	
5b	Chromium (VI)												No Limit	
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
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	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide	0.32	7.06	0.53	2.74	2.74	1.55	4.26	3.11	8.541879	–	8.5	CTR	CTR Based WQBEL
15	Asbestos												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)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	10			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6				5.9	4.0			4.0			N	No	UD;Effluent ND,MDL>C & No			
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	10			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	1			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	20			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	20			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6				2600	5			5			N	No	UD;Effluent ND,MDL>C & No			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	10			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	10			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	10			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6				9.10				9.10			N	No	UD;Effluent ND,MDL>C & No			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	10			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	10			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	10			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	10			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6				8.9				8.9			N	No	UD;Effluent ND,MDL>C & No			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	10			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	10			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6				8.10				8.10000			N	No	UD;Effluent ND,MDL>C & No			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	10			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	10			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6					5.00			5.00			N	No	UD;Effluent ND,MDL>C & No			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6	0.005			0.046				0.046	No	No	N	No	Ud;MEC<C & no B			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.01			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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 (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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L) Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	LA River TMDL Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	2.7			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	11.9	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	0.2			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	0.464	2.54	1.65	Narrative	5.00			1.65	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	0.464						3.10	3.10	No	No	N	No	Ud;MEC<C & no B		2.01	
5a	Chromium (III)	ug/L	0.6	100	1142.84	136.22	Narrative				136.22	No	No	N	No	Ud;MEC<C & no B			
5b	Chromium (VI)	ug/L	0.6	0.05	16.29	11.43	Narrative				11.43	No	No	N	No	Ud;MEC<C & no B			
6	Copper (Dry Weather)	ug/L	0.6	91	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	32.5	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	32.5						62.00	62.00	No	No	N	No	Ud;MEC<C & no B		2.01	
8	Mercury	ug/L	0.6	0.16	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	34.4	304.54	33.86	4600.00	100.00			33.86	Yes	Yes	N	Yes	MEC>=C	4600	2.01	9228.47012
10	Selenium	ug/L	0.6	0.765	20.00	5.00	Narrative	50.00			5.00	No	No	N	No	Ud;MEC<C & no B			
11	Silver	ug/L	0.6	0.177	1.69						1.69	No	No	N	No	Ud;MEC<C & no B			
12	Thallium	ug/L	0.6	0.8			6.30	2.00			2.00	No	No	N	No	Ud;MEC<C & no B			
13	Zinc (Dry Weather)	ug/L	0.6	990	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	990						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	2.6	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6	0.7				7.0			7.00	No	No	N	No	Ud;MEC<C & no B			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6	0.5			42	5			5.0	No	No	N	No	Ud;MEC<C & no B			
43	Trichloroethylene	ug/L	0.6	0.5			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		8.72	6.69	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	Lowest AMEL	Lowest MDEL		
1	Antimony												No Limit	
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)												No Limit	
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)												No Limit	
5b	Chromium (VI)												No Limit	
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel	0.32	32.11	0.53	17.86	17.86	1.55	27.72	3.11	55.61972	–	56	CTR	CTR Based WQBEL
10	Selenium												No Limit	
11	Silver												No Limit	
12	Thallium												No Limit	
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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) Freshwater C acute = CMC tot	C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	13			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	7.9			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	1			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	1			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	2			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	2			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	2			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	5			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6	0.005			0.046				0.046	No	No	N	No	Ud;MEC<C & no B			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.01			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	–	4	CTR	CTR Based WQBEL
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	3.1			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	6.5	340.00	150.00		10.00			10.00	No	No	N	No	Ud;MEC<C & no B			
3	Beryllium	ug/L	0.6	0.5			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	93	2.54	1.65	Narrative	5.00			1.65	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	93						3.10	3.10	Yes	Yes	N	Yes	MEC>=C		2.01	
5a	Chromium (III)	ug/L	0.6	27	1142.84	136.22	Narrative				136.22	No	No	N	No	Ud;MEC<C & no B			
5b	Chromium (VI)	ug/L	0.6	0.74	16.29	11.43	Narrative				11.43	No	No	N	No	Ud;MEC<C & no B			
6	Copper (Dry Weather)	ug/L	0.6	93	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	25	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	25						62.00	62.00	No	No	N	No	Ud;MEC<C & no B		2.01	
8	Mercury	ug/L	0.6	0.29	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	20	304.54	33.86	4600.00	100.00			33.86	No	No	N	No	Ud;MEC<C & no B			
10	Selenium	ug/L	0.6	2	20.00	5.00	Narrative	50.00			5.00	No	No	N	No	Ud;MEC<C & no B			
11	Silver	ug/L	0.6	0.2	1.69						1.69	No	No	N	No	Ud;MEC<C & no B			
12	Thallium	ug/L	0.6	0.429			6.30	2.00			2.00	No	No	N	No	Ud;MEC<C & no B			
13	Zinc (Dry Weather)	ug/L	0.6	440	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	440						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	0.005	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6	1.42				7.0			7.00	No	No	N	No	Ud;MEC<C & no B			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6	0.5			42	5			5.0	No	No	N	No	Ud;MEC<C & no B			
43	Trichloroethylene	ug/L	0.6	0.5			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		8.72	6.69	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	Lowest AMEL	Lowest MDEL		
1	Antimony												No Limit	
2	Arsenic												No Limit	
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)	0.32	0.82	0.53	0.87	0.82	1.55	1.27	3.11	2.54	–	2.5	CTR	CTR Based WQBEL
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)												No Limit	
5b	Chromium (VI)												No Limit	
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel												No Limit	
10	Selenium												No Limit	
11	Silver												No Limit	
12	Thallium												No Limit	
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	15.1			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	2			5.9	4.0			4.0	No	No	N	No	Ud;MEC<C & no B			
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	1			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	1			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	2			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	2			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	2			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	5			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6	0.005			0.046				0.046	No	No	N	No	Ud;MEC<C & no B			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.01			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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 (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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	1.6			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	1.5	340.00	150.00		10.00			10.00	No	No	N	No	Ud;MEC<C & no B			
3	Beryllium	ug/L	0.6	0.2			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	0.4	2.54	1.65	Narrative	5.00			1.65	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	0.4						3.10	3.10	No	No	N	No	Ud;MEC<C & no B		2.01	
5a	Chromium (III)	ug/L	0.6	1.6	1142.84	136.22	Narrative				136.22	No	No	N	No	Ud;MEC<C & no B			
5b	Chromium (VI)	ug/L	0.6	0.08	16.29	11.43	Narrative				11.43	No	No	N	No	Ud;MEC<C & no B			
6	Copper (Dry Weather)	ug/L	0.6	51	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	14	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	14						62.00	62.00	No	No	N	No	Ud;MEC<C & no B		2.01	
8	Mercury	ug/L	0.6	0.19	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	4.3	304.54	33.86	4600.00	100.00			33.86	No	No	N	No	Ud;MEC<C & no B			
10	Selenium	ug/L	0.6	10	20.00	5.00	Narrative	50.00			5.00	Yes	Yes	N	Yes	MEC>=C		2.01	
11	Silver	ug/L	0.6	0.2	1.69						1.69	No	No	N	No	Ud;MEC<C & no B			
12	Thallium	ug/L	0.6	7			6.30	2.00			2.00	Yes	Yes	N	Yes	MEC>=C	6.3	2.01	12.63899
13	Zinc (Dry Weather)	ug/L	0.6	500	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	500						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	2	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6	0.18				7.0			7.00	No	No	N	No	Ud;MEC<C & no B			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6	0.5			42	5			5.0	No	No	N	No	Ud;MEC<C & no B			
43	Trichloroethylene	ug/L	0.6	0.5			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		8.72	6.69	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	Lowest AMEL	Lowest MDEL		
1	Antimony												No Limit	
2	Arsenic												No Limit	
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)												No Limit	
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)												No Limit	
5b	Chromium (VI)												No Limit	
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel												No Limit	
10	Selenium	0.32	6.42	0.53	2.64	2.64	1.55	4.09	3.11	8.213345	–	8.2	CTR	CTR Based WQBEL
11	Silver												No Limit	
12	Thallium	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	2	CTR	CTR Based WQBEL
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	15.1			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	6.3			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	1			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	1			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	2			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	2			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	2			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	5			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6	0.005			0.046				0.046	No	No	N	No	Ud;MEC<C & no B			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.01			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	1.99	4	CTR	CTR Based WQBEL
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 K: Reasonable Potential Analysis
Santa Anita Park - Outfall 012

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	55.4			4300.00	6.00			6.00	Yes	Yes	N	Yes	MEC>=C	4300	2.01	8626.61338
2	Arsenic	ug/L	0.6	5.6	340.00	150.00		10.00			10.00	No	No	N	No	Ud;MEC<C & no B			
3	Beryllium	ug/L	0.6	0.2			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	0.5	2.54	1.65	Narrative	5.00			1.65	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	0.5						3.10	3.10	No	No	N	No	Ud;MEC<C & no B		2.01	
5a	Chromium (III)	ug/L	0.6	4.2	1142.84	136.22	Narrative				136.22	No	No	N	No	Ud;MEC<C & no B			
5b	Chromium (VI)	ug/L	0.6	1.24	16.29	11.43	Narrative				11.43	No	No	N	No	Ud;MEC<C & no B			
6	Copper (Dry Weather)	ug/L	0.6	20	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	11	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	11						62.00	62.00	No	No	N	No	Ud;MEC<C & no B		2.01	
8	Mercury	ug/L	0.6	0.16	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	7	304.54	33.86	4600.00	100.00			33.86	No	No	N	No	Ud;MEC<C & no B			
10	Selenium	ug/L	0.6	9	20.00	5.00	Narrative	50.00			5.00	Yes	Yes	N	Yes	MEC>=C		2.01	
11	Silver	ug/L	0.6	0.2	1.69						1.69	No	No	N	No	Ud;MEC<C & no B			
12	Thallium	ug/L	0.6	9			6.30	2.00			2.00	Yes	Yes	N	Yes	MEC>=C	6.3	2.01	12.63899
13	Zinc (Dry Weather)	ug/L	0.6	150	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	150						159.00	159.0	No	No	N	No	Ud;MEC<C & no B		2.01	
14	Cyanide	ug/L	0.6	0.005	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6	0.18				7.0			7.00	No	No	N	No	Ud;MEC<C & no B			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6	0.5			42	5			5.0	No	No	N	No	Ud;MEC<C & no B			
43	Trichloroethylene	ug/L	0.6	0.5			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		8.72	6.69	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS Saltwater / Freshwater / Basin Plan									LIMITS		Recommendation	Comment
		ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL		
1	Antimony	0.32	1.93	0.53		1.93	1.55	2.99	3.11	6	–	6	CTR	CTR Based WQBEL
2	Arsenic												No Limit	
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)												No Limit	
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)												No Limit	
5b	Chromium (VI)												No Limit	
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel												No Limit	
10	Selenium	0.32	6.42	0.53	2.64	2.64	1.55	4.09	3.11	8.213345	–	8.2	CTR	CTR Based WQBEL
11	Silver												No Limit	
12	Thallium	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	2	CTR	CTR Based WQBEL
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	2			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	6.6			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	3.3			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	1			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	2			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	2			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	2			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	5			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6	0.005			0.046				0.046	No	No	N	No	Ud;MEC<C & no B			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.01			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	1.99	4	CTR	CTR Based WQBEL
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L) Freshwater C acute = CMC tot	C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	3.2			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	83	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	14			Narrative	4.00			4.00	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (Dry Weather)	ug/L	0.6	8	2.54	1.65	Narrative	5.00			1.65	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	8						3.10	3.10	Yes	Yes	N	Yes	MEC>=C		2.01	
5a	Chromium (III)	ug/L	0.6	1020	1142.84	136.22	Narrative				136.22	Yes	Yes	N	Yes	MEC>=C		2.01	
5b	Chromium (VI)	ug/L	0.6	68.17	16.29	11.43	Narrative				11.43	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (Dry Weather)	ug/L	0.6	529	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	200	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	200						62.00	62.00	Yes	Yes	N	Yes	MEC>=C		2.01	
8	Mercury	ug/L	0.6	0.27	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	211	304.54	33.86	4600.00	100.00			33.86	Yes	Yes	N	Yes	MEC>=C	4600	2.01	9228.47012
10	Selenium	ug/L	0.6	12	20.00	5.00	Narrative	50.00			5.00	Yes	Yes	N	Yes	MEC>=C		2.01	
11	Silver	ug/L	0.6	1.3	1.69						1.69	No	No	N	No	Ud;MEC<C & no B			
12	Thallium	ug/L	0.6	2.6			6.30	2.00			2.00	Yes	Yes	N	Yes	MEC>=C	6.3	2.01	12.63899
13	Zinc (Dry Weather)	ug/L	0.6	1320	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	1320						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	3.5	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6	2.2				7.0			7.00	No	No	N	No	Ud;MEC<C & no B			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.5			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6	0.5			42	5			5.0	No	No	N	No	Ud;MEC<C & no B			
43	Trichloroethylene	ug/L	0.6	0.5			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		8.72	6.69	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	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	Comment
1	Antimony												No Limit	
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4.00	–	4	CTR	CTR Based WQBEL
4	Cadmium (Dry Weather)	0.32	0.82	0.53	0.87	0.82	1.55	1.27	3.11	2.54	–	2.5	CTR	CTR Based WQBEL
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)	0.32	366.95	0.53	71.85	71.85	1.55	111.54	3.11	223.76	–	224	CTR	CTR Based WQBEL
5b	Chromium (VI)	0.32	5.23	0.53	6.03	5.23	1.55	8.12	3.11	16.29	–	16.3	CTR	CTR Based WQBEL
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel	0.32	32.11	0.53	17.86	17.86	1.55	27.72	3.11	55.61972	–	56	CTR	CTR Based WQBEL
10	Selenium	0.32	6.42	0.53	2.64	2.64	1.55	4.09	3.11	8.213345	–	8.2	CTR	CTR Based WQBEL
11	Silver												No Limit	
12	Thallium	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	2	CTR	CTR Based WQBEL
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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) Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Human Health for Organisms only	MUN Organic & Inorganic	LA River TMDL Dry Weather WLAs	LA River TMDL Wet Weather WLAs	Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA) MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	2			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	18			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	2			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	1			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	2			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	2			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	2			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	5			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6	0.005			0.046				0.046	No	No	N	No	Ud;MEC<C & no B			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.01			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	–	4	CTR	CTR Based WQBEL
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

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	2			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	60	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	2.3			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	2	2.54	1.65	Narrative	5.00			1.65	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	2						3.10	3.10	No	No	N	No	Ud;MEC<C & no B		2.01	
5a	Chromium (III)	ug/L	0.6	480	1142.84	136.22	Narrative				136.22	Yes	Yes	N	Yes	MEC>=C		2.01	
5b	Chromium (VI)	ug/L	0.6	489	16.29	11.43	Narrative				11.43	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (Dry Weather)	ug/L	0.6	200	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	65	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	65						62.00	62.00	Yes	Yes	N	Yes	MEC>=C		2.01	
8	Mercury	ug/L	0.6	0.68	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	184	304.54	33.86	4600.00	100.00			33.86	Yes	Yes	N	Yes	MEC>=C	4600	2.01	9228.47012
10	Selenium	ug/L	0.6	10	20.00	5.00	Narrative	50.00			5.00	Yes	Yes	N	Yes	MEC>=C		2.01	
11	Silver	ug/L	0.6	7	1.69						1.69	Yes	Yes	N	Yes	MEC>=C		2.01	
12	Thallium	ug/L	0.6	4			6.30	2.00			2.00	Yes	Yes	N	Yes	MEC>=C	6.3	2.01	12.63899
13	Zinc (Dry Weather)	ug/L	0.6	940	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	940						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	1.4	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6	1.42				7.0			7.00	No	No	N	No	Ud;MEC<C & no B			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.41			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6	0.5			42	5			5.0	No	No	N	No	Ud;MEC<C & no B			
43	Trichloroethylene	ug/L	0.6	0.5			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		8.72	6.69	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	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	Comment
1	Antimony												No Limit	
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)	0.32	0.82	0.53	0.87	0.82	1.55	1.27	3.11	2.54	–	2.5	CTR	CTR Based WQBEL
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)	0.32	366.95	0.53	71.85	71.85	1.55	111.54	3.11	223.76	–	224	CTR	CTR Based WQBEL
5b	Chromium (VI)	0.32	5.23	0.53	6.03	5.23	1.55	8.12	3.11	16.29	–	16.3	CTR	CTR Based WQBEL
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel	0.32	32.11	0.53	17.86	17.86	1.55	27.72	3.11	55.61972	–	56	CTR	CTR Based WQBEL
10	Selenium	0.32	6.42	0.53	2.64	2.64	1.55	4.09	3.11	8.213345	–	8.2	CTR	CTR Based WQBEL
11	Silver	0.32	0.54	0.53		0.54	1.55	0.84	3.11	1.685855	–	1.7	CTR	CTR Based WQBEL
12	Thallium	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	2	CTR	CTR Based WQBEL
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490		-	N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	3.3			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	7			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	2			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	1			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	2			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	2			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	2			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	5			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6	0.005			0.046				0.046	No	No	N	No	Ud;MEC<C & no B			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.01			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS Saltwater / Freshwater / Basin Plan									LIMITS		Recommendation	Comment
		ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL		
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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	–	4	CTR	CTR Based WQBEL
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 K: Reasonable Potential Analysis
Santa Anita Park - Outfall 015

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	2.3			4300.00	6.00			6.00	No	No	N	No	Ud;MEC<C & no B			
2	Arsenic	ug/L	0.6	30	340.00	150.00		10.00			10.00	Yes	Yes	N	Yes	MEC>=C		2.01	
3	Beryllium	ug/L	0.6	2.3			Narrative	4.00			4.00	No	No	N	No	Ud;MEC<C & no B			
4	Cadmium (Dry Weather)	ug/L	0.6	2.8	2.54	1.65	Narrative	5.00			1.65	Yes	Yes	N	Yes	MEC>=C		2.01	
4	Cadmium (TMDL Wet Weather)	ug/L	0.6	2.8						3.10	3.10	No	No	N	No	Ud;MEC<C & no B		2.01	
5a	Chromium (III)	ug/L	0.6	160	1142.84	136.22	Narrative				136.22	Yes	Yes	N	Yes	MEC>=C		2.01	
5b	Chromium (VI)	ug/L	0.6	495	16.29	11.43	Narrative				11.43	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (Dry Weather)	ug/L	0.6	310	8.65	6.03					6.03	Yes	Yes	N	Yes	MEC>=C		2.01	
6	Copper (TMDL Wet Weather)	ug/L	0.6	85						67.50	67.50	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (Dry Weather)	ug/L	0.6	110	42.61	1.66	Narrative				1.66	Yes	Yes	N	Yes	MEC>=C		2.01	
7	Lead (TMDL Wet Weather)	ug/L	0.6	110						62.00	62.00	Yes	Yes	N	Yes	MEC>=C		2.01	
8	Mercury	ug/L	0.6	0.31	Reserved	Reserved	0.05	2.00			0.05	Yes	Yes	N	Yes	MEC>=C	0.051	2.01	0.10232
9	Nickel	ug/L	0.6	120	304.54	33.86	4600.00	100.00			33.86	Yes	Yes	N	Yes	MEC>=C	4600	2.01	9228.47012
10	Selenium	ug/L	0.6	2.7	20.00	5.00	Narrative	50.00			5.00	No	No	N	No	Ud;MEC<C & no B			
11	Silver	ug/L	0.6	0.7	1.69						1.69	No	No	N	No	Ud;MEC<C & no B			
12	Thallium	ug/L	0.6	9			6.30	2.00			2.00	Yes	Yes	N	Yes	MEC>=C	6.3	2.01	12.63899
13	Zinc (Dry Weather)	ug/L	0.6	1400	77.72	77.72					77.7	Yes	Yes	N	Yes	MEC>=C		2.01	
13	Zinc (TMDL Wet Weather)	ug/L	0.6	1400						159.00	159.0	Yes	Yes	N	Yes	MEC>=C		2.01	
14	Cyanide	ug/L	0.6	2.3	22.00	5.20	220000.0	150.0			5.20	No	No	N	No	Ud;MEC<C & no B			
15	Asbestos	MFL	0.6	1.42				7.0			7.00	No	No	N	No	Ud;MEC<C & no B			
17	Acrolein	ug/L	0.6	0.5			780.0				780	No	No	N	No	Ud;MEC<C & no B			
18	Acrylonitrile	ug/L	0.6	0.5			0.66				0.660	No	No	N	No	Ud;MEC<C & no B			
19	Benzene	ug/L	0.6	0.5			71	1			1.0	No	No	N	No	Ud;MEC<C & no B			
20	Bromoform	ug/L	0.6	0.5			360				360.0	No	No	N	No	Ud;MEC<C & no B			
21	Carbon Tetrachloride	ug/L	0.6				4.4	0.5			0.50			N	No	UD;Effluent ND,MDL>C & No			
22	Chlorobenzene	ug/L	0.6	0.5			21000				21000	No	No	N	No	Ud;MEC<C & no B			
23	Chlorodibromomethane	ug/L	0.6	0.5			34				34.00	No	No	N	No	Ud;MEC<C & no B			
24	Chloroethane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.5			46	5			5.00	No	No	N	No	Ud;MEC<C & no B			
28	1,1-Dichloroethane	ug/L	0.6	0.5				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
29	1,2-Dichloroethane	ug/L	0.6				99	1			0.50			N	No	UD;Effluent ND,MDL>C & No			
30	1,1-Dichloroethylene	ug/L	0.6	0.5			3.2	6.0			3.200	No	No	N	No	Ud;MEC<C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.5			39	5			5.00	No	No	N	No	Ud;MEC<C & no B			
32	1,3-Dichloropropylene	ug/L	0.6				1700	1			1			N	No	UD;Effluent ND,MDL>C & No			
33	Ethylbenzene	ug/L	0.6	0.5			29000	300			300	No	No	N	No	Ud;MEC<C & no B			
34	Methyl Bromide	ug/L	0.6	0.5			4000				4000	No	No	N	No	Ud;MEC<C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6	0.5			1600				1600.0	No	No	N	No	Ud;MEC<C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.5			11	1			1.00	No	No	N	No	Ud;MEC<C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.5			8.85	5.00			5.0	No	No	N	No	Ud;MEC<C & no B			
39	Toluene	ug/L	0.6	0.31			200000	150			150	No	No	N	No	Ud;MEC<C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.5			140000	10			10	No	No	N	No	Ud;MEC<C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	0.5				200.00			200.00	No	No	N	No	Ud;MEC<C & no B			
42	1,1,2-Trichloroethane	ug/L	0.6	0.5			42	5			5.0	No	No	N	No	Ud;MEC<C & no B			
43	Trichloroethylene	ug/L	0.6	0.5			81	5			5.0	No	No	N	No	Ud;MEC<C & no B			
44	Vinyl Chloride	ug/L	0.6				525	1			1			N	No	UD;Effluent ND,MDL>C & No			
45	2-Chlorophenol	ug/L	0.6	5			400				400	No	No	N	No	Ud;MEC<C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	2			790				790	No	No	N	No	Ud;MEC<C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	2			2300				2300	No	No	N	No	Ud;MEC<C & no B			
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	5			765				765.0	No	No	N	No	Ud;MEC<C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	1			14000				14000	No	No	N	No	Ud;MEC<C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6		8.72	6.69	8.2	1.0			1.00			N	No	UD;Effluent ND,MDL>C & No			
54	Phenol	ug/L	0.6	2			4600000				4600000	No	No	N	No	Ud;MEC<C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	2			6.5				6.5	No	No	N	No	Ud;MEC<C & no B			
56	Acenaphthene	ug/L	0.6	5			2700				2700	No	No	N	No	Ud;MEC<C & no B			
57	Acenaphthylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
58	Anthracene	ug/L	0.6	2			110000				110000	No	No	N	No	Ud;MEC<C & no B			
59	Benzidine	ug/L	0.6				0.00054				0.00054			N	No	UD;Effluent ND,MDL>C & No			
60	Benzo(a)Anthracene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
61	Benzo(a)Pyrene	ug/L	0.6				0.049	0.200			0.049			N	No	UD;Effluent ND,MDL>C & No			
62	Benzo(b)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	Lowest AMEL	Lowest MDEL		
1	Antimony												No Limit	
2	Arsenic	0.32	3.21	0.53	79.12	3.21	1.55	4.98	3.11	10	–	10	CTR	CTR Based WQBEL
3	Beryllium												No Limit	
4	Cadmium (Dry Weather)	0.32	0.82	0.53	0.87	0.82	1.55	1.27	3.11	2.54	–	2.5	CTR	CTR Based WQBEL
4	Cadmium (TMDL Wet Weather)	0.32	1.00	0.53		1.00	1.55	1.55	3.11	3.1	–	3.1	TMDL Wet Weather	TMDL Based WQBEL
5a	Chromium (III)	0.32	366.95	0.53	71.85	71.85	1.55	111.54	3.11	223.76	–	224	CTR	CTR Based WQBEL
5b	Chromium (VI)	0.32	5.23	0.53	6.03	5.23	1.55	8.12	3.11	16.29	–	16.3	CTR	CTR Based WQBEL
6	Copper (Dry Weather)	0.32	2.78	0.53	3.18	2.78	1.55	4.31	3.11	8.65	–	8.7	CTR	CTR Based WQBEL
6	Copper (TMDL Wet Weather)	0.32	21.67	0.53		21.67	1.55	33.65	3.11	67.5	–	67.5	TMDL Wet Weather	TMDL Based WQBEL
7	Lead (Dry Weather)	0.32	13.68	0.53	0.88	0.88	1.55	1.36	3.11	2.726831	–	2.7	CTR	CTR Based WQBEL
7	Lead (TMDL Wet Weather)	0.32	19.91	0.53		19.91	1.55	30.90	3.11	62	–	62	TMDL Wet Weather	TMDL Based WQBEL
8	Mercury	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	0.1	CTR	CTR Based WQBEL
9	Nickel	0.32	32.11	0.53	17.86	17.86	1.55	27.72	3.11	55.61972	–	56	CTR	CTR Based WQBEL
10	Selenium												No Limit	
11	Silver												No Limit	
12	Thallium	0.32	0.64	0.53		0.64	1.55	1.00	3.11	2	–	2	CTR	CTR Based WQBEL
13	Zinc (Dry Weather)	0.32	24.95	0.53	40.99	24.95	1.55	38.74	3.11	77.72	–	77.7	CTR	CTR Based WQBEL
13	Zinc (TMDL Wet Weather)	0.32	51.05	0.53		51.05	1.55	79.25	3.11	159	–	159	TMDL Wet Weather	TMDL Based WQBEL
14	Cyanide												No Limit	
15	Asbestos												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)			MUN	LA River TMDL		Lowest C or WLAs	REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health for										Organisms only		
					C acute = CMC tot	C chronic = CCC tot	Organisms only	Organic & Inorganic	Dry Weather WLAs	Wet Weather WLAs		MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
64	Benzo(k)Fluoranthene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6				1.4				1.400			N	No	UD;Effluent ND,MDL>C & No			
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	4.3			170000				170000	No	No	N	No	Ud;MEC<C & no B			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	7.2			5.9	4.0			4.0	Yes	Yes	N	Yes	MEC>=C	5.9	2.01	11.83652
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	2			5200				5200	No	No	N	No	Ud;MEC<C & no B			
71	2-Chloronaphthalene	ug/L	0.6	1			4300				4300	No	No	N	No	Ud;MEC<C & no B			
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
73	Chrysene	ug/L	0.6				0.049				0.049			N	No	UD;Effluent ND,MDL>C & No			
74	Dibenzo(a,h)Anthracene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
75	1,2-Dichlorobenzene	ug/L	0.6	2			17000	600			600	No	No	N	No	Ud;MEC<C & no B			
76	1,3-Dichlorobenzene	ug/L	0.6	2			2600				2600	No	No	N	No	Ud;MEC<C & no B			
77	1,4-Dichlorobenzene	ug/L	0.6	2			2600	5			5	No	No	N	No	Ud;MEC<C & no B			
78	3,3 Dichlorobenzidine	ug/L	0.6				0.077				0.08			N	No	UD;Effluent ND,MDL>C & No			
79	Diethyl Phthalate	ug/L	0.6	5			120000				120000	No	No	N	No	Ud;MEC<C & no B			
80	Dimethyl Phthalate	ug/L	0.6	5			2900000				2900000	No	No	N	No	Ud;MEC<C & no B			
81	Di-n-Butyl Phthalate	ug/L	0.6	2			12000				12000	No	No	N	No	Ud;MEC<C & no B			
82	2,4-Dinitrotoluene	ug/L	0.6	1			9.10				9.10	No	No	N	No	Ud;MEC<C & no B			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6				0.54				0.540			N	No	UD;Effluent ND,MDL>C & No			
86	Fluoranthene	ug/L	0.6	1			370				370	No	No	N	No	Ud;MEC<C & no B			
87	Fluorene	ug/L	0.6	2			14000				14000	No	No	N	No	Ud;MEC<C & no B			
88	Hexachlorobenzene	ug/L	0.6				0.00077	1.00000			0.00077			N	No	UD;Effluent ND,MDL>C & No			
89	Hexachlorobutadiene	ug/L	0.6	2			50				50.00	No	No	N	No	Ud;MEC<C & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	2			17000	50			50	No	No	N	No	Ud;MEC<C & no B			
91	Hexachloroethane	ug/L	0.6	2			8.9				8.9	No	No	N	No	Ud;MEC<C & no B			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6				0.049				0.0490			N	No	UD;Effluent ND,MDL>C & No			
93	Isophorone	ug/L	0.6	1			600				600.0	No	No	N	No	Ud;MEC<C & no B			
94	Naphthalene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1			1900				1900	No	No	N	No	Ud;MEC<C & no B			
96	N-Nitrosodimethylamine	ug/L	0.6	2			8.10				8.10000	No	No	N	No	Ud;MEC<C & no B			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6				1.40				1.400			N	No	UD;Effluent ND,MDL>C & No			
98	N-Nitrosodiphenylamine	ug/L	0.6	2			16				16.0	No	No	N	No	Ud;MEC<C & no B			
99	Phenanthrene	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
100	Pyrene	ug/L	0.6	0.01			11000				11000	No	No	N	No	Ud;MEC<C & no B			
101	1,2,4-Trichlorobenzene	ug/L	0.6	0.005				5.00			5.00	No	No	N	No	Ud;MEC<C & no B			
102	Aldrin	ug/L	0.6		3.00		0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
103	alpha-BHC	ug/L	0.6	0.005			0.013				0.0130	No	No	N	No	Ud;MEC<C & no B			
104	beta-BHC	ug/L	0.6	0.005			0.046				0.046	No	No	N	No	Ud;MEC<C & no B			
105	gamma-BHC	ug/L	0.6	0.01	0.95		0.063				0.063	No	No	N	No	Ud;MEC<C & no B			
106	delta-BHC	ug/L	0.6	No Criteria							No Criteria	No Criteria	No Criteria	N	Uc	No Criteria			
107	Chlordane	ug/L	0.6		2.40	0.00	0.00059	0.10000			0.00059			N	No	UD;Effluent ND,MDL>C & No			
108	4,4'-DDT	ug/L	0.6		1.10	0.00	0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
109	4,4'-DDE (linked to DDT)	ug/L	0.6				0.00059				0.00059			N	No	UD;Effluent ND,MDL>C & No			
110	4,4'-DDD	ug/L	0.6				0.00084				0.00084			N	No	UD;Effluent ND,MDL>C & No			
111	Dieldrin	ug/L	0.6		0.24	0.06	0.00014				0.00014			N	No	UD;Effluent ND,MDL>C & No			
112	alpha-Endosulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
113	beta-Endolsulfan	ug/L	0.6	0.01	0.22	0.056	240				0.0560	No	No	N	No	Ud;MEC<C & no B			
114	Endosulfan Sulfate	ug/L	0.6	0.01			240				240	No	No	N	No	Ud;MEC<C & no B			
115	Endrin	ug/L	0.6	0.01	0.086	0.036	0.81	2.00			0.0360	No	No	N	No	Ud;MEC<C & no B			
116	Endrin Aldehyde	ug/L	0.6	0.01			0.81				0.81	No	No	N	No	Ud;MEC<C & no B			
117	Heptachlor	ug/L	0.6		0.52	0.0038	0.00021	0.01000			0.00021			N	No	UD;Effluent ND,MDL>C & No			
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038	0.00011	0.01000			0.00011			N	No	UD;Effluent ND,MDL>C & No			
119-125	PCBs sum (2)	ug/L	0.6			0.01	0.00017				0.00017			N	No	UD;Effluent ND,MDL>C & No			
126	Toxaphene	ug/L	0.6		0.73	0.0002	0.00075	3.00000			0.0002			N	No	UD;Effluent ND,MDL>C & No			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		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	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	0.32	1.28	0.53		1.28	1.55	1.99	3.11	4	–	4	CTR	CTR Based WQBEL
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