

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

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Los Angeles Regional Water Quality Control Board
(<http://www.waterboards.ca.gov/losangeles>)

**ORDER NUMBER R4-2023-XXXX
NPDES NUMBER CA0001309, CI NUMBER 6027**

**WASTE DISCHARGE REQUIREMENTS
FOR THE BOEING COMPANY, SANTA SUSANA FIELD LABORATORY**

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

Table 1. Discharger Information

Discharger:	The Boeing Company
Name of Facility:	Santa Susana Field Laboratory
Facility Address:	5800 Woolsey Canyon Road Canoga Park, CA 91304-1148 Ventura County

Table 2. Discharge Locations for Stormwater Runoff

Discharge Point	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	34.216120	-118.696390	Bell Creek
002	34.217254	-118.705215	Bell Creek
003	34.234539	-118.711581	Bell Creek/Arroyo Simi
004	34.235959	-118.707270	Bell Creek/Arroyo Simi
005	34.230295	-118.718401	Bell Creek/Arroyo Simi
006	34.231073	-118.717441	Bell Creek/Arroyo Simi
007	34.230659	-118.715553	Bell Creek/Arroyo Simi
008	34.228344	-118.675489	Dayton Canyon Creek
009	34.238606	-118.694826	Arroyo Simi
010	34.238181	-118.700390	Bell Creek/Arroyo Simi
011	34.224102	-118.688849	Bell Creek
018	34.226245	-118.706157	Bell Creek

Table 3. Administrative Information

This Order was adopted on:	September 28, 2023
This Order shall become effective on:	December 1, 2023
This Order shall expire on:	November 30, 2028
The Discharger shall file a Report of Waste Discharge (ROWD) as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a NPDES permit no later than:	180 days prior to the Order expiration date
The United States Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board have classified this discharge as follows:	Major

I, Susana Arredondo, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on **the date indicated above**.

Susana Arredondo, Executive Officer

TABLE OF CONTENTS

1. FACILITY INFORMATION	5
2. FINDINGS	5
3. DISCHARGE PROHIBITIONS	5
4. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS	6
4.1. Effluent Limitations – Discharge Points 001, 002, 011, and 018	6
4.2. Effluent Limitations – Discharge Points 003, 004, 005, 006, 007, 009 and 010	10
4.3. Effluent Limitations – Discharge Point 008	13
4.4. Land Discharge Specifications – Not Applicable	15
4.5. Recycling Specifications – Not Applicable	15
5. RECEIVING WATER LIMITATIONS	15
5.1. Surface Water Limitations	15
5.2. Sediment Limitations for Organochlorine (OC) Pesticides and PCBs applicable to Arroyo Simi only	17
5.3. Groundwater Limitations – Not Applicable	17
6. PROVISIONS	17
6.1. Standard Provisions	17
6.2. Monitoring and Reporting Program (MRP) Requirements	19
6.3. Special Provisions	19
7. COMPLIANCE DETERMINATION	23
7.1. Single Constituent Effluent Limitation	23
7.2. Effluent Limitations Expressed as a Sum of Several Constituents	23
7.3. Effluent Limitations Expressed as a Median	23
7.4. Multiple Sample Data	24
7.5. Average Monthly Effluent Limitation (AMEL) – Not Applicable	24
7.6. Maximum Daily Effluent Limitations (MDEL)	24
7.7. Instantaneous Minimum Effluent Limitation	24
7.8. Instantaneous Maximum Effluent Limitation	24
7.9. Compliance with the pH Limitation	24
7.10. Chronic Toxicity	25
7.11. Mass and Concentration Limitations	25
7.12. Bacterial Standards and Analyses	25
7.13. Mass Emission Rates	26
7.14. Compliance with Sediment Limitations	26
7.15. Compliance with Gross Alpha (USGS, 2001)	26
7.16. Compliance with Gross Beta/Photon Emitters	27
7.17. Compliance with Discharge Points in Same Drainage (Discharge Points 001, 002, 011, & 018)	29

TABLE OF TABLES

Table 1. Discharger Information	1
Table 2. Discharge Locations for Stormwater Runoff	1
Table 3. Administrative Information	2
Table 4. Final Effluent Limitations for Discharge Points 001, 002, 011, and 018	6
Table 5. Final Effluent Limitations for	10
Table 6. Final Effluent Limitations for Discharge Point 008	13

Table 7. Surface Water Limits for Chlorpyrifos and Diazinon in Arroyo Simi 16
Table 8. Sediment Limits for OC Pesticides and PCBs in Arroyo Simi 17

TABLE OF ATTACHMENTS

Attachment A – DefinitionsA-1
Attachment B-1 – Facility Location MapB-1
Attachment B-2 – Facility Site Map.....B-2
Attachment C-3 – Stormwater Treatment System Flow Schematic Discharge Point 018.....C-1
Attachment C-4 – Stormwater Treatment System Flow Schematic Discharge Point 011.....C-2
Attachment C-5 – Bioswale / Biofilter Flow Schematic Area I.....C-3
Attachment C-6 – Groundwater Extraction Treatment System Flow Schematic.....C-4
Attachment D – Standard Provisions..... D-1
Attachment E – Monitoring And Reporting Program.....E-1
Attachment F – Fact Sheet.....F-1
Attachment G – Storm Water Pollution Prevention Plan Requirements G-1
Attachment H – Reasonable Potential Analysis.....H-1

1. FACILITY INFORMATION

Information describing the Santa Susana Field Laboratory (Facility or SSFL) is summarized in Table 1 and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

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

- 2.1. **Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the United States Environmental Protection Agency (U.S. EPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge locations described in Table 2 subject to the WDRs in this Order.
- 2.2. **Background and Rationale for Requirements.** The Los Angeles Water Board developed the requirements in this Order based on information submitted as part of the application and through the Discharger's monitoring and reporting programs along with 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 are also incorporated into this Order.
- 2.3. **Notification of Interested Parties.** The Los Angeles 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.
- 2.4. **Consideration of Public Comment.** The Los Angeles 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 Order No. R4-2015-0033 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted 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 Los Angeles Water Board from taking enforcement action for violations of the previous Order.

3. DISCHARGE PROHIBITIONS

- 3.1. The discharge of waste shall not exceed 187 million gallons per day (MGD) of stormwater runoff, as described in the Fact Sheet (Attachment F). All non-stormwater discharges are prohibited.

- 3.2. The discharge of waste at a location other than specifically described in this Order is prohibited. The discharge of wastes from accidental spills or other sources is prohibited, unless specifically authorized elsewhere in this Order.
- 3.3. 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, Arroyo Simi, Bell Creek, Dayton Canyon Creek, or other waters of the United States, are prohibited.
- 3.4. The treatment or the discharge of pollutants shall not cause pollution, contamination, or a nuisance as defined by section 13050 of the Water Code.
- 3.5. The discharge of any substances in concentrations toxic to human, animal, plant, or aquatic life is prohibited.
- 3.6. The discharge of oil or any residuary product of petroleum to waters of the United States, except in accordance with waste discharge requirements or other provisions of division 7 of the Water Code, is prohibited.
- 3.7. The discharge of any radiological, chemical, or biological warfare agent into the waters of the state is prohibited under Water Code section 13375.
- 3.8. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order.
- 3.9. The discharge of trash to surface waters of the United States or the deposition of trash where it may be discharged into surface waters of the United States is prohibited.
- 3.10. The discharge of polychlorinated biphenyl (PCB) compounds, such as those once commonly used for transformer fluid, is prohibited, unless specifically authorized elsewhere in this Order.

4. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS

4.1. Effluent Limitations – Discharge Points 001, 002, 011, and 018

The discharge of stormwater shall maintain compliance with the following effluent limitations at Discharge Points 001, 002, 011, and 018, with compliance measured at Monitoring Locations EFF-001, EFF-002, EFF-011, and EFF-018, respectively, as described in the Monitoring and Reporting Program (MRP), Attachment E.

**Table 4. Final Effluent Limitations for
Discharge Points 001, 002, 011, and 018**

Parameters	Units	Maximum Daily	Notes
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	milligram per liter (mg/L)	30	--
BOD (5-day @ 20°C)	pounds per day (lbs/day)	29,481	a
Oil and Grease	mg/L	15	--
Oil and Grease	lbs/day	14,741	a

pH	standard units	6.5 to 8.5	b
Aluminum	mg/L	1.0	--
Aluminum	lbs/day	983	a
Barium, Total Recoverable (TR)	mg/L	1.0	--
Barium, TR	lbs/day	983	a
Chloride	mg/L	150	--
Chloride	lbs/day	147,405	a
Chlorine, TR	mg/L	0.1	--
Chlorine, TR	lbs/day	98.3	a
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass or % Effect < 50	c
Fluoride	mg/L	1.6	--
Fluoride	lbs/day	1,572	a
Detergents (as MBAS)	mg/L	0.5	--
Detergents (as MBAS)	lbs/day	491.4	a
Ammonia – N	mg/L	10.1	--
Ammonia – N	lbs/day	9,925	a
Manganese	µg/L	50	--
Manganese	lbs/day	49.1	a
Nitrate – N	mg/L	8	--
Nitrate – N	lbs/day	7,862	a
Nitrite – N	mg/L	1	--
Nitrite – N	lbs/day	983	a
Nitrate + Nitrite – N	mg/L	8	--
Nitrate + Nitrite – N	lbs/day	7,862	a
Perchlorate	µg/L	6.0	--
Perchlorate	lbs/day	5.9	a
Sulfate	mg/L	300	--
Sulfate	lbs/day	294,810	a
Temperature	degrees Fahrenheit (°F)	80	d
Total Dissolved Solids	mg/L	950	--
Total Dissolved Solids	lbs/day	933,565	a
Radioactivity – Gross Alpha	Picocuries per liter (pCi/L)	15	e
Radioactivity – Gross Beta	millirem/year	4	e
Combined Radium-226 & Radium-228	pCi/L	5.0	e
Tritium	pCi/L	20,000	e
Strontium-90	pCi/L	8.0	e
Uranium	pCi/L	20	e
Antimony, Total Recoverable (TR)	micrograms per liter (µg/L)	6.0	f

Antimony, TR	lbs/day	5.9	a
Arsenic, TR	µg/L	10.0	f
Arsenic, TR	lbs/day	9.83	a
Beryllium, TR	µg/L	4.0	f
Beryllium, TR	lbs/day	3.93	a
Cadmium, TR	µg/L	3.1	f and g
Cadmium, TR	lbs/day	3.05	a
Chromium (VI)	µg/L	16	f, g, and h
Chromium (VI)	lbs/day	15.72	a
Copper, TR	µg/L	67.5	f and g
Copper, TR	lbs/day	66.3	a
Lead, TR	µg/L	5.2	f and g
Lead, TR	lbs/day	5.1	a
Mercury, TR	µg/L	0.1	f
Mercury, TR	lbs/day	0.1	a
Nickel, TR	µg/L	94	f
Nickel, TR	lbs/day	92.4	a
Selenium, TR	µg/L	8.2	f
Selenium, TR	lbs/day	8.1	a
Silver, TR	µg/L	4.1	f and g
Silver, TR	lbs/day	4.03	a
Thallium, TR	µg/L	2.0	f
Thallium, TR	lbs/day	1.97	a
Zinc, TR	µg/L	159	f and g
Zinc, TR	lbs/day	156.25	a
Cyanide	µg/L	8.5	--
Cyanide	lbs/day	8.4	a
TCDD Equivalents	µg/L	2.8E-08	i
TCDD Equivalents	lbs/day	2.75E-08	a
1,2-Dichloroethane	µg/L	0.5	--
1,2-Dichloroethane	lbs/day	0.49	a
1,1-Dichloroethylene	µg/L	6.0	--
1,1-Dichloroethylene	lbs/day	5.9	a
Trichloroethylene	µg/L	5	--
Trichloroethylene	lbs/day	4.9	a
Pentachlorophenol	µg/L	1	--
Pentachlorophenol	lbs/day	0.98	a
2,4,6-Trichlorophenol	µg/L	13	--
2,4,6-Trichlorophenol	lbs/day	12.8	a
Benzidine	µg/L	0.00054	--
Benzidine	lbs/day	0.00053	a
Bis(2-ethylhexyl) Phthalate	µg/L	4	--

Bis(2-ethylhexyl) Phthalate	lbs/day	3.93	a
3,3'-Dichlorobenzidine	µg/L	0.077	--
3,3'-Dichlorobenzidine	lbs/day	0.076	a
2,4-Dinitrotoluene	µg/L	18	--
2,4-Dinitrotoluene	lbs/day	17.7	a
Indeno(1,2,3-cd) Pyrene	µg/L	0.1	--
Indeno(1,2,3-cd) Pyrene	lbs/day	0.1	a
N-Nitrosodimethylamine	µg/L	16	--
N-Nitrosodimethylamine	lbs/day	15.72	a
alpha-BHC	µg/L	0.03	--
alpha-BHC	lbs/day	0.03	a
4,4'-DDE	µg/L	0.00059	--
4,4'-DDE	lbs/day	0.00058	a
Heptachlor	µg/L	0.00042	--
Heptachlor	lbs/day	0.00041	a

Footnotes for Table 4

- The mass-based effluent limitations are calculated using the maximum flow of 117.83 million gallons per day (MGD) for Discharge Points 001, 002, 011, and 018 combined as follows:
$$\text{Mass (lbs/day)} = \text{Flow (mgd)} * 8.34 * \text{concentration (mg/L)}.$$
- The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.
- The Maximum Daily Effluent Limitation (MDEL) for chronic toxicity shall be reported as "Pass" or "Fail" and "% Effect".
- The effluent limitation for temperature is 80°F as an Instantaneous Maximum.
- The radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, chapter 15, article 5, sections 64442 and 64443, of the California Code of Regulations (CCR), or subsequent revisions.
- Samples analyzed must be unfiltered samples.
- Concentrations correspond to a total hardness of 100 mg/L.
- The Discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been made for hexavalent chromium in a replicate sample and the result reported is within the hexavalent chromium limits.
- TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), toxicity equivalency factors (TEFs), and bioaccumulation equivalency factor (BEF) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

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

where:

C_x = concentration of dioxin or furan congener x

TEF_x = TEF for congener x

BEF_x = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

End of Footnotes for Table 4

4.2. Effluent Limitations – Discharge Points 003, 004, 005, 006, 007, 009 and 010

The discharge of stormwater shall maintain compliance with the following effluent limitations at Discharge Points 003, 004, 005, 006, 007, 009, and 010, with compliance measured at Monitoring Locations EFF-003, EFF-004, EFF-005, EFF-006, EFF-007, EFF-009, and EFF-010, as described in the Monitoring and Reporting Program (MRP), Attachment E:

**Table 5. Final Effluent Limitations for
Discharge Points 003, 004, 005, 006, 007, 009, and 010**

Parameters	Units	Maximum Daily	Notes
Oil and grease	mg/L	15	--
Oil and grease	lbs/day	8,048	a
pH	standard units	6.5 to 8.5	b
Aluminum	mg/L	1.0	--
Aluminum	lbs/day	537	a
Boron	mg/L	1.0	--
Boron	lbs/day	537	a
Chloride	mg/L	150	--
Chloride	lbs/day	80,477	a

Parameters	Units	Maximum Daily	Notes
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass or % Effect < 50	c
Fluoride	mg/L	1.6	--
Fluoride	lbs/day	858	a
Nitrate + Nitrite – N	mg/L	10	--
Nitrate + Nitrite – N	lbs/day	5,365	a
Perchlorate	µg/L	6.0	--
Perchlorate	lbs/day	3.22	a
Sulfate	mg/L	250	--
Sulfate	lbs/day	134,128	a
Temperature	°F	80	d
Total Dissolved Solids	mg/L	850	--
Total Dissolved Solids	lbs/day	456,034	a
Radioactivity – Gross Alpha	pCi/L	15	e
Radioactivity – Gross Beta	millirem/yr	4	e
Combined Radium-226 & Radium-228	pCi/L	5.0	e
Tritium	pCi/L	20,000	e
Strontium-90	pCi/L	8.0	e
Uranium	pCi/L	20	e
Antimony, TR	µg/L	6.0	f
Antimony, TR	lbs/day	3.2	a
Cadmium, TR	µg/L	4.0	f and g
Cadmium, TR	lbs/day	2.1	a
Copper, TR	µg/L	31	f and g
Copper, TR	lbs/day	16.6	a
Lead, TR	µg/L	5.2	f and g
Lead, TR	lbs/day	2.8	a
Mercury, TR	µg/L	0.024	f
Mercury, TR	lbs/day	0.013	a
Nickel, TR	µg/L	100	f and g
Nickel, TR	lbs/day	53.7	a
Thallium, TR	µg/L	2	f
Thallium, TR	lbs/day	1.1	a
Zinc, TR	µg/L	120	f and g
Zinc, TR	lbs/day	64.4	a
Cyanide	µg/L	9.5	--
Cyanide	lbs/day	5.1	a
TCDD Equivalents	µg/L	2.8E-08	h
TCDD Equivalents	lbs/day	1.5E-08	a
Pentachlorophenol	µg/L	1.0	--

Parameters	Units	Maximum Daily	Notes
Pentachlorophenol	lbs/day	0.54	a
Bis(2-ethylhexyl)Phthalate	µg/L	4.0	--
Bis(2-ethylhexyl)Phthalate	lbs/day	2.1	a

Footnotes for Table 5

- The mass-based effluent limitations are calculated using the maximum flow for Discharge Points 003, 004, 005, 006, 007, 009, and 010, which is 64.33 MGD, as follows:

$$\text{Mass (lbs/day)} = \text{Flow (mgd)} * 8.34 * \text{concentration (mg/L)}.$$
- The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.
- The MDEL for chronic toxicity shall be reported "Pass" or "Fail" and "% Effect".
- The effluent limitation for temperature is 80°F as an Instantaneous Maximum.
- The radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, chapter 15, article 5, sections 64442 and 64443, of the CCR, or subsequent revisions.
- Samples analyzed must be unfiltered samples.
- Concentrations correspond to a total hardness of 100 mg/L.
- TCDD equivalents shall be calculated using the following formula, where the MLs, TEFs, and BEF are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

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

where: C_x = concentration of dioxin or furan congener x
 TEF_x = TEF for congener x
 BEF_x = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6

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

End of Footnotes for Table 5

4.3. Effluent Limitations – Discharge Point 008

The discharge of stormwater shall maintain compliance with the following effluent limitations at Discharge Point 008, with compliance measured at Monitoring Locations EFF-008, as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 6. Final Effluent Limitations for Discharge Point 008

Parameters	Units	Maximum Daily	Notes
Oil and Grease	mg/L	15	--
Oil and Grease	lbs/day	902	a
pH	standard units	6.5 to 8.5	b
Aluminum	mg/L	1.0	--
Aluminum	lbs/day	60	a
Boron	mg/L	1.0	--
Boron	lbs/day	60	a
Chloride	mg/L	150	--
Chloride	lbs/day	9,020	a
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass or % Effect < 50	c
Fluoride	mg/L	1.6	--
Fluoride	lbs/day	96.2	a
Ammonia – N	mg/L	10.1	--
Ammonia – N	lbs/day	607.3	a
Nitrate – N	mg/L	8	--
Nitrate – N	lbs/day	481	a
Nitrite – N	mg/L	1	--
Nitrite – N	lbs/day	60	a
Nitrate + Nitrite – N	mg/L	8	--
Nitrate + Nitrite – N	lbs/day	481	a
Perchlorate	µg/L	6.0	--
Perchlorate	lbs/day	0.36	a
Sulfate	mg/L	300	--
Sulfate	lbs/day	18,039	a

Parameters	Units	Maximum Daily	Notes
Temperature	°F	80	d
Total Dissolved Solids	mg/L	950	--
Total Dissolved Solids	lbs/day	57,124	a
Radioactivity – Gross Alpha	pCi/L	15	e
Radioactivity – Gross Beta	millirem/yr	4	e
Combined Radium-226 & Radium-228	pCi/L	5.0	e
Tritium	pCi/L	20,000	e
Strontium-90	pCi/L	8.0	e
Uranium	pCi/L	20	e
Arsenic, TR	µg/L	10.0	f
Arsenic, TR	lbs/day	0.6	a
Cadmium, TR	µg/L	3.1	f and g
Cadmium, TR	lbs/day	0.19	a
Copper, TR	µg/L	67.5	f and g
Copper, TR	lbs/day	4.1	a
Lead, TR	µg/L	5.2	f and g
Lead, TR	lbs/day	0.31	a
Mercury, TR	µg/L	0.024	f
Mercury, TR	lbs/day	0.0014	a
Zinc, TR (Note f)	µg/L	159	f and g
Zinc, TR (Note f)	lbs/day	9.6	a
Cyanide	µg/L	9.5	--
Cyanide	lbs/day	0.57	a
Benzidine	µg/L	0.00054	
Benzidine	lbs/day	3.2E-05	a
3,3'-Dichlorobenzidine	µg/L	0.077	
3,3'-Dichlorobenzidine	lbs/day	0.0046	a
4,4'-DDE	µg/L	0.00059	
4,4'-DDE	lbs/day	3.5E-05	a

Footnotes for Table 6

- a. The mass-based effluent limitations are calculated using the maximum flow for Discharge Point 008, which is 7.21 MGD, as follows:

$$\text{Mass (lbs/day)} = \text{Flow (mgd)} * 8.34 * \text{concentration (mg/L)}.$$

- b. The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.
- c. The MDEL for chronic toxicity shall be reported "Pass" or "Fail" and "% Effect".
- d. The effluent limitation for temperature is 80°F as an Instantaneous Maximum.
- e. The radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, chapter 15, article 5, sections 64442 and 64443, of the CCR, or subsequent revisions.
- f. Samples analyzed must be unfiltered samples.
- g. Concentrations correspond to a total hardness of 100 mg/L.

End of Footnotes for Table 6

4.4. Land Discharge Specifications – Not Applicable

4.5. Recycling Specifications – Not Applicable

5. RECEIVING WATER LIMITATIONS

5.1. Surface Water Limitations

The discharge shall not cause exceedances of the following receiving water limitations. All surface water limitations apply to all receiving waters unless otherwise specified:

- 5.1.1. The pH shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.
- 5.1.2. At no time shall the temperature be raised above 80 °F as a result of waste discharge.
- 5.1.3. Water Contact Recreation (REC-I): In fresh water designated for REC-1, the waste discharged shall not cause the following bacteria limitations to be exceeded in the receiving water.

a. Bell Creek only:

- i. Geometric Mean Limits: *E. coli* density shall not exceed 126 most probable number (MPN)/100 mL.
- ii. Single Sample Maximum: *E. coli* density shall not exceed 235 MPN/100 mL.

b. Arroyo Simi only:

- i. Geometric Mean Limits: *E. coli* density shall not exceed 100 colony forming unit (cfu) or MPN/100mL.
- ii. Statistical Threshold Value (STV): *E. coli* density shall not exceed 320 cfu or MPN/100mL by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

- 5.1.4. The mean annual dissolved oxygen concentration shall be greater than 7.0 mg/L and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.
- 5.1.5. Waters shall not contain total ammonia (as N) concentrations in exceedance as specified in Chapter 3 of the Basin Plan.
- 5.1.6. Waters shall not contain floating materials, including solids, liquids, foams, and scum in concentrations that cause a nuisance or adversely affect beneficial uses.
- 5.1.7. Waters shall be free of changes in turbidity that cause a nuisance or adversely affect beneficial uses. Increases in natural turbidity shall not exceed the following limits:

- a. Where natural turbidity is between 0 to 50 NTU, increases in turbidity shall not exceed 20%.
 - b. Where natural turbidity is greater than 50 NTU, increases in turbidity shall not exceed 10%.
- 5.1.8. Waters shall not contain 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 that cause a nuisance or adversely affect beneficial uses.
- 5.1.9. Waters shall not contain suspended or settleable materials, chemical substances, or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use in the receiving water.
- 5.1.10. Waters shall be maintained free of 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.
- 5.1.11. The discharge shall not cause accumulation of bottom deposits or aquatic growths.
- 5.1.12. Waters shall not contain biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes a nuisance or adversely affects beneficial uses.
- 5.1.13. Waters shall be free of substances that result in increases of Biochemical Oxygen Demand (BOD) that adversely affect beneficial uses.
- 5.1.14. Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes, odors to fish and shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses.
- 5.1.15. The discharge shall not cause the degradation of surface water communities and populations including vertebrate, invertebrate, and plant species in the receiving water.
- 5.1.16. The discharge shall not cause problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests in the receiving water.
- 5.1.17 Organophosphate (OP) Pesticides Limitations for Arroyo Simi:
- The discharge shall not cause the concentration of constituents in Arroyo Simi in the vicinity of the discharges from Discharge Point 003 through 007, 009, and 010, to exceed the following limits:

Table 7. Surface Water Limits for Chlorpyrifos and Diazinon in Arroyo Simi

Constituents	Units	Daily Maximum
Chlorpyrifos	µg/L	0.014
Diazinon	µg/L	0.010

5.2. Sediment Limitations for Organochlorine (OC) Pesticides and PCBs applicable to Arroyo Simi only

The Discharger shall comply with sediment limitations in Table 8. The Discharger is required to use analytical methods with detection values below the specified limits, if possible, to demonstrate compliance.

Table 8. Sediment Limits for OC Pesticides and PCBs in Arroyo Simi

Constituents	Units	Annual Average
Chlordane	µg/g	0.0033
4,4'-DDD	µg/g	0.002
4,4'-DDE	µg/g	0.0014
4,4'-DDT	µg/g	0.0003
Dieldrin	µg/g	0.0002
PCBs	µg/g	0.12
Toxaphene	µg/g	0.0006

5.3. Groundwater Limitations – Not Applicable

6. PROVISIONS

6.1. Standard Provisions

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

6.1.2. 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:

- The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of stormwater to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal stormwater management programs developed to comply with NPDES permits issued by the Los Angeles Water Board to local agencies.
- 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.
- 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.
- Oil or oily material, chemicals, refuse, or other wastes that constitute a condition of pollution or nuisance shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to

surface waters. Any such spill of such materials shall be contained and removed immediately.

- e. A copy of these waste discharge requirements shall be maintained at the discharge facility so as to be available at all times to operating personnel.
- f. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not staffed at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
- g. The Discharger shall file with the Los Angeles Water Board a report of waste discharge at least 120 days before making any proposed change in the character, location, or volume of the discharge.
- h. In the event of any change in name, ownership, or control of these waste disposal facilities, the Discharger shall notify this Los Angeles Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Los Angeles Water Board, 30 days prior to taking effect.
- i. Violation of any of the provisions of this Order may subject the violator to any of the civil liability or penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of liability or penalty may be applied for each kind of violation.
- j. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to the planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
 - i. Name and general composition of the chemical,
 - ii. Frequency of use,
 - iii. Quantities to be used,
 - iv. Proposed discharge concentrations, and
 - v. U.S. EPA registration number, if applicable.
- k. The Discharger shall make diligent, proactive efforts to reduce Facility infrastructure vulnerability to current and future impacts resulting from climate change, including but not limited to extreme wet weather events, flooding, storm surges, wildfires, and projected sea level rise when the facility is located near the ocean or discharges to the ocean.
- l. 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, civil or 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.
- m. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this

Order, the Discharger shall notify the Manager of the Watershed Regulatory Section at the Los Angeles Water Board by telephone at (213) 576-6616 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Los Angeles 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. The written notification shall also be submitted via email with reference to NPDES No. CA0001309, CI-6027 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the normal monitoring report.

- n. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation under authority preserved by section 311 of the CWA, related to oil and hazardous substances liability.
- o. 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.

6.2. Monitoring and Reporting Program (MRP) Requirements

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

6.3. Special Provisions

In the event that an effluent limitation, set forth in Section 4, for a pollutant is exceeded from Discharge Points 001 through 011, and 018, the Discharger, the California Department of Toxic Substances Control (DTSC), which oversees the cleanup of soil and groundwater at the site, and the Los Angeles Water Board will work cooperatively to develop a schedule that is as short as possible to take appropriate actions under the Resource Conservation and Recovery Act (RCRA) corrective action requirements or permits to ensure compliance with this Order. The Discharger shall provide, within 30 days of the date of discovery documentation, the following: (i) whether discharges from a solid waste management unit regulated by DTSC are causing or contributing to the violation, (ii) whether the Discharger was in compliance with all applicable requirements of DTSC permits and corrective action requirements for the unit, and (iii) whether modifications to DTSC's permit or corrective action requirements are necessary to consistently comply with this Order.

6.3.1. Reopener Provisions

- a. This Order may be modified, revoked and reissued, or terminated 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 by failure to disclose fully all relevant facts; or

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

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. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the federal CWA, and amendments thereto, the Los Angeles Water Board may revise and modify this Order in accordance with such more stringent standards.
- c. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the reasonable potential analysis (RPA).
- d. This Order may be reopened and modified, in accordance with the provisions set forth in title 40 Code of Federal Regulations (40 CFR) parts 122 and 124, to include requirements for the implementation of the watershed protection management approach or to include new minimum levels (MLs).
- e. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan amendments, such as an update of a water quality objective or the adoption or revision of a TMDL for the Los Angeles River and tributaries thereto or Calleguas Creek and tributaries thereto.
- 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.
- g. This Order may be reopened and modified, in accordance with applicable laws and regulations, while appropriate actions are being taken under the RCRA corrective action requirements or permits, to ensure compliance with this Order.
- h. This Order may be reopened and modified, revoked, or reissued if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have reasonable potential to cause, or contribute to adverse impacts on beneficial uses or degradation of water quality of the receiving waters.
- i. This Order may also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR parts 122.44, 122.62 to 122.64, 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.

- j. The SSFL site is owned in part by Boeing and in part by the federal government. The National Aeronautics and Space Administration (“NASA”) controls and administers the property owned by the federal government. The U.S. Department of Energy (DOE) and its predecessor previously leased a 90-acre portion of Boeing-owned land in Area IV. The entire site is subject to a comprehensive remediation program under the regulatory oversight of DTSC, but DOE, NASA and Boeing each have separate areas of responsibility for remediation activities due to their historic activities and involvement at SSFL. Historically, Boeing had contractual relationships with DOE and NASA for site operations, including remediation and maintenance support, until October 2014 and March 2015, respectively. Boeing also has agreements with NASA and DOE that establish access rights associated with the other entity’s property and provisions related to stormwater permitting and management. As DTSC continues its oversight of remediation activities, this Order may be modified for cause as environmental remediation activities progress and remediation milestones are completed. Based on differences in the timing of completion among the portions of the cleanup being conducted by DOE, NASA and Boeing, respectively, it is possible that this Order may be reopened to include other parties as named dischargers in addition to Boeing, and/or to reissue the Order to parties other than Boeing. Any such reopener could include modification of effluent limitations and additional monitoring requirements; and sufficient post clean-up monitoring and verification to ensure that threats to human health and the environment have been mitigated. Any such reopener could also include additional justification for regulation based on remediation efforts.

6.3.2. **Special Studies, Technical Papers and Additional Monitoring Requirements**

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

The Discharger shall submit to the Los Angeles Water Board an updated Initial Investigation TRE workplan within **90 days** of the effective date of this permit. This plan shall describe the steps the Discharger intends to follow in the event that toxicity is detected. See section 5.6. of the Monitoring and Reporting Program (Attachment E) for an overview of TRE requirements.

6.3.3. **Best Management Practices and Pollution Prevention**

The Discharger shall submit to the Los Angeles Water Board, within 90 days of the effective date of this Order, updated versions of the following:

- a. **Stormwater Pollution Prevention Plan (SWPPP)** that describes site-specific management practices for minimizing contamination of stormwater runoff and preventing contaminated stormwater runoff and trash from being discharged directly to waters of the state. The SWPPP shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge point; describe the activities in each area and the potential for contamination of stormwater runoff and the discharge of trash or hazardous waste/material; and address the feasibility of containment and/or treatment of

stormwater. In addition, the SWPPP shall address and include best management practices procedures that the Discharger will implement to prohibit the discharge of trash from the Facility. The updated SWPPP shall be developed in accordance with the requirements in Attachment G.

- b. **Best Management Practices Plan (BMPP)** that will be implemented to reduce the discharge of pollutants to the receiving water. The BMPP may be included within the SWPPP as a description of best management practices (BMPs). The BMPP shall include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material and trash from being discharged to waters of the State. Further, the Discharger shall ensure that the stormwater discharges from the Facility would neither cause, nor contribute to the exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water, and that unauthorized discharges (i.e., spills) to the receiving water have been effectively prohibited. In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material and trash discharge to surface waters.

The Discharger is maintaining the engagement of the Surface Water Expert Panel, which was convened under previous orders for the Facility, to advise on the SWPPP and BMPP. With input from the Surface Water Expert Panel, the Discharger shall submit annual reports that describe the previous year's monitoring results and include an evaluation of existing BMP performance and submit a workplan that includes recommendations for modified and/or new stormwater controls and monitoring that will address exceedances of limitations at any Discharge Point addressed by this permit. The Discharger shall also support the Surface Water Expert Panel in organizing periodic public interaction events and encouraging public communication and involvement.

- c. **Spill Contingency Plan (SCP)**, that includes a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The SCP may be substituted with an updated version of the Discharger's existing Spill Prevention Control and Countermeasure (SPCC) Plan.

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

The Discharger shall implement the SWPPP, BMPP, and SCP (or SPCC Plan) within 10 days of the approval by the Executive Officer or no later than 90 days after submission to the Los Angeles Water Board, whichever comes first. The plans shall be reviewed concurrently every year. Updated information shall be submitted to the Los Angeles Water Board **within 30 days** of revisions.

The Discharger shall continue to implement any existing and previously approved SWPPP, BMPP, and SCP (or SPCC) until an updated SWPPP, BMPP, and SCP (or SPCC) is approved by the Executive Officer or until the stipulated 90-day period after the updated SWPPP submittal has occurred.

6.3.4. Construction, Operation and Maintenance Specifications

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

6.3.5. Climate Change Effects Vulnerability Assessment and Mitigation Plan: The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change-related effects that may impact the facility's operation, water supplies, water quality, and beneficial uses. The Discharger shall consider the impacts of climate change as they affect the operation of the treatment facility due to flooding, wildfires, or other climate-related changes. The Climate Change Plan shall also discuss any projected changes to pollutant concentrations in the stormwater and/or receiving water. The Climate Change Plan is due **12 months** after the effective date of this Order.

6.3.6. Compliance Schedules – Not Applicable

7. COMPLIANCE DETERMINATION

Compliance with the effluent limitations is based on all available data collected during the time period, contained in section 4 of this Order, will be determined as specified below:

7.1. 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 (ML) (see Reporting Requirement 1.9. of the MRP), then the Discharger is out of compliance.

7.2. 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, constituents reported as ND or DNQ are treated as having concentrations equal to zero, provided that the applicable ML is used.

7.3. Effluent Limitations Expressed as a Median

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

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

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

7.4. Multiple Sample Data

When determining compliance with an 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:

- 7.4.1. 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.
- 7.4.2. 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.

7.5. Average Monthly Effluent Limitation (AMEL) – Not Applicable

7.6. Maximum Daily Effluent Limitations (MDEL)

If a daily discharge on a calendar day exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that day for that parameter. For any one day during which no sample is taken, no compliance determination can be made for that day.

7.7. 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 potential 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).

7.8. 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 potential 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).

7.9. Compliance with the pH Limitation

If the receiving water pH exceeds 8.5 pH units as a result of:

- a. high pH in the off-site stormwater, or
- b. elevated pH in the receiving water upstream of the discharge

then the exceedance shall not be considered a violation.

7.10. Chronic Toxicity

The discharge is subject to determination of “Pass” or “Fail” and “Percent Effect” from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test 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, Table A-1, and Appendix B, Table B-1 and the procedures described in the *State Policy for Water Quality Control: Toxicity Provisions*. Attainment of the water quality objective is demonstrated by conducting chronic aquatic toxicity testing as described in Section III.B.2 of the Toxicity Provisions and rejecting the null hypothesis in accordance with the TST statistical approach described in Section III.B.3. of the Toxicity Provisions. Under Section II.C.1. of the Toxicity Provisions, the chronic aquatic toxicity water quality objective is expressed as a null hypothesis. The null hypothesis (H_0) for the TST statistical approach is:

Mean discharge In-stream Waste Concentration (IWC) response $\leq 0.75 \times$ 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:

$$((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100\%.$$

This is a t-test (formally Student’s t-Test), a statistical analysis comparing two sets of replicate observations - in the case of Whole Effluent Toxicity (WET), only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

The MDEL for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST approach, results in “Fail” and the “Percent Effect” is ≥ 50 .

7.11. Mass and Concentration Limitations

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

7.12. Bacterial Standards and Analyses

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

$$\text{Geometric Mean} = (C_1 \times C_2 \times \dots \times C_3)^{1/n}$$

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 *Enterococcus* shall be those presented in Table 1A of 40 CFR part 136 (revised August 28, 2017), unless alternate methods have been approved by U.S. EPA pursuant to 40 CFR part 136 or improved methods have been determined by the Executive Officer and/or U.S. EPA.

7.13. Mass Emission Rates

In calculating mass emission rates, 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, 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.

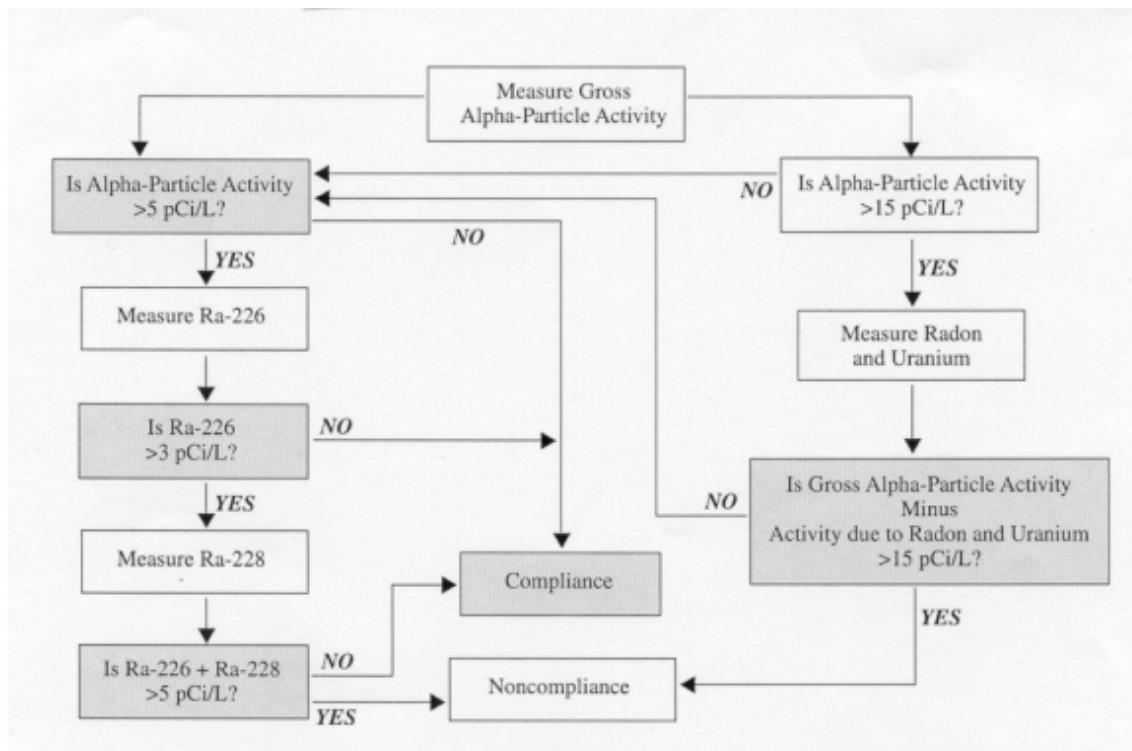
7.14. Compliance with Sediment Limitations

Per the TMDL for Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation in the Calleguas Creek Watershed (Basin Plan Chapter 7, Section 7-17):

Attainment of sediment limitations in the receiving water for the constituents listed in section 5.2. above will be determined by calculating the in-stream annual average at the base of the subwatershed where the discharges are located. The Facility’s discharge from Discharge Points 003, 004, 005, 006, 007, 009, and 010 is located in Arroyo Simi. Since the Facility is located near the top of the watershed, the Discharger shall collect samples closer to the Facility, adjacent to Frontier Park, Simi Valley, CA. The data collected in this area will provide information regarding the pollutant concentrations in sediment in the upper watershed, and in the area that may be impacted by discharges from the Facility.

7.15. Compliance with Gross Alpha (USGS, 2001)

The maximum daily effluent limitation for gross alpha is 15 picoCuries per liter (pCi/L). Analysis of Gross Alpha must be performed. Demonstration of compliance can be followed in the chart below excerpted from: “Occurrence of Selected Radionuclides in Ground Water Used for Drinking Water in the United States: A Reconnaissance Survey, 1998.” U.S. Department of the Interior, U.S. Geological Survey. Water-Resources Investigations Report 00-4237.



7.16. Compliance with Gross Beta/Photon Emitters

The maximum daily effluent limitation for gross beta/photon is equal to 4 millirem/year with a screening level of 50 pCi/L. Due to naturally occurring Potassium-40, the results of the Potassium-40 may be subtracted from the total gross beta activity to determine if the screening level is exceeded. The Potassium-40 beta particle activity must be calculated by multiplying elemental potassium concentration (in mg/L) by a factor of 0.82 to determine activity from Potassium-40. The Potassium-40 must be analyzed from the same or equivalent sample used for the gross beta analysis.

If the gross beta particle activity minus the naturally occurring Potassium-40 is less than or equal to 50 pCi/L, the Facility is in compliance and the value shall be reported as <4 millirem/year. If the gross beta particle activity minus the naturally occurring Potassium-40 beta particle activity exceeds the screening level, the Discharger must have the samples further analyzed for the *individual* nuclides. The calculation for the sum of the fractions is presented below.

The maximum contaminant level (MCL) for gross beta/photon emitters is equal 4 millirem per year. A millirem is a dose of energy to the body or any internal organ. USEPA regulates 179 man-made nuclides, and each of them has a concentration of radiation measured in pCi/L, which produces the 4 millirem dose. These concentrations are listed on table, *Derived Concentrations of (pCi/L) of Beta and Photon Emitters in Drinking Water*, which shall be used to determine compliance.

Derived Concentrations (pCi/l) of Beta and Photon Emitters in Drinking Water

Yielding a Dose of 4 mrem/yr to the Total Body or to any Critical Organ as defined in NBS
Handbook 69

Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l
H-3	20,000	Ni-65	300	Nb-95	300	Sb-124	60	Nd-147	200	Os-191	600
Be-7	6,000	Cu-64	900	Nb-97	3,000	Sb-125	300	Nd-149	900	Os-191m	9,000
C-14	2,000	Zn-65	300	Mo-99	600	Te-125m	600	Pm-147	600	Os-193	200
F-18	2,000	Zn-69	6,000	Tc-96	300	Te-127	900	Pm-149	100	Ir-190	600
Na-22	400	Zn-69m	200	Tc-98m	30,000	Te-127m	200	Sm-151	1,000	Ir-192	100
Na-24	600	Ga-72	100	Tc-97	6,000	Te-129	2,000	Sm-153	200	Ir-194	90
Si-31	3,000	Ge-71	6,000	Tc-97m	1,000	Te-129m	90	Eu-152	200	Pt-191	300
P-32	30	As-73	1,000	Tc-99	900	Te-131m	200	Eu-154	60	Pt-193	3,000
S-35 inorg	500	As-74	100	Tc-99m	20,000	Te-132	90	Eu-155	600	Pt-193m	3,000
Cl-36	700	As-76	60	Ru-97	1,000	I-126	3	Gd-153	600	Pt-197	300
Cl-38	1,000	As-77	200	Ru-103	200	I-129	1	Gd-159	200	Pt-197m	3,000
K-42	900	Se-75	900	Ru-105	200	I-131	3	Tb-160	100	Au-196	600
Ca-45	10	Br-82	100	Ru-106	30	I-132	90	Dy-165	1,000	Au-198	100
Ca-47	80	Rb-86	600	Rh-103m	30,000	I-133	10	Dy-166	100	Au-199	600
Sc-46	100	Rb-87	300	Rh-105	300	I-134	100	Ho-166	90	Hg-197	900
Sc-47	300	Sr-85m	20,000	Pd-103	900	I-135	30	Er-169	300	Hg-197m	600
Sc-48	80	Sr-85	900	Pd-109	300	Cs-131	20,000	Er-171	300	Hg-203	60
V-48	90	Sr-89	20	Ag-105	300	Cs-134	80	Tm-170	100	Tl-200	1,000
Cr-51	6,000	Sr-90	8	Ag-110m	90	Cs-134m	20,000	Tm-171	1,000	Tl-201	900
Mn-52	90	Sr-91	200	Ag-111	100	Cs-135	900	Yb-175	300	Tl-202	300
Mn-54	300	Sr-92	200	Cd-109	600	Cs-136	800	Lu-177	300	Tl-204	300
Mn-56	300	Y-90	60	Cd-115	90	Cs-137	200	Hf-181	200	Pb-203	1,000
Fe-55	2,000	Y-91	90	Cd-115m	90	Ba-131	600	Ta-182	100	Bi-206	100
Fe-59	200	Y-91m	9,000	In-113m	3,000	Ba-140	90	W-181	1,000	Bi-207	200
Co-57	1,000	Y-92	200	In-114m	60	La-140	60	W-185	300	Pa-230	600
Co-58	300	Y-93	90	In-115	300	Ce-141	300	W-187	200	Pa-233	300
Co-58m	9000	Zr-93	2,000	In-115m	1,000	Ce-143	100	Re-186	300	Np-239	300
Co-60	100	Zr-95	200	Sn-113	300	Ce-144	30	Re-187	9,000	Pu-241	300
Ni-59	300	Zr-97	60	Sn-125	60	Pr-142	90	Re-188	200	Bk-249	2,000
Ni-63	50	Nb-93m	1,000	Sb-122	90	Pr-143	100	Os-185	200		

The sum of the fraction method is used because each photon emitter targets a different organ of the body, which results in a different magnitude of risk. The sum of the beta and photon emitters shall not exceed 4 millirem/year (40 CFR section 141.66(d)(2)).

Each nuclide has a different concentration that produces 4 millirem dose because different radionuclides have different energy levels. Some nuclides need to be in a higher concentration to give the same 4 millirem dose.

The laboratory shall measure the nuclide concentration in the water and compare this result to the concentration allowed for that particular nuclide (see table below). The comparison results in a fraction. This is shown in calculation below:

Fraction of the maximum

4 millirem/ year exposure limit = (equals)

pCi/L found in sample (from laboratory results) ÷ (divided by)
pCi/L equivalent from 4 millirem of exposure (from conversion table)

Fraction of the maximum

4 millirem/year exposure limit = $\frac{\text{pCi/L found in sample (from laboratory results)}}{\text{pCi/L equivalent from 4 millirem of exposure (from conversion table)}}$

Each fraction must then be converted to a dose equivalent of 4 millirem/year by multiplying the fraction by 4. The results for each emitter must be summed to

determine compliance. If during the preceding 12-month period, the total sum of the fraction is more than 4 millirem/year, then it is counted as a violation.

A sample calculation is presented in the table below:

Emitter	Lab Analysis (X) (pCi/L)	Conversion from table (Y) (pCi/4millirem)	Calculate Fraction (X/Y)	Calculate Total (4(X/Y)) (millirem)
Cs-134	5,023	20,000	0.25115	1.0
Cs-137	30	200	0.150	0.6
Sr-90	4	8	0.5	2.0
I-131	2	3	0.7	2.8
Sum of the Fractions	--	--	1.60115	6.4

In the example above, the system would be considered in violation of the gross beta/photon effluent limitation because the “sum-of-the-fractions” is 6.4 millirem, which means that the sum of the annual dose equivalent to the total body, or to any internal organ, exceeds 4 millirem/year.

7.17. Compliance with Discharge Points in Same Drainage (Discharge Points 001, 002, 011, & 018)

For Discharge Points in the same drainage area, effluent limitation violations involving the same pollutant parameter will be treated as a single violation if the violations occur during the same discharge event. Discharge Point 001 is in the same drainage area as Discharge Point 011 and Discharge Point 002 is in the same drainage area as Discharge Point 018.

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:

$$\text{Arithmetic mean } (\mu) = \frac{\sum x}{n}$$

where: $\sum x$ is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)

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

Best Management Practices (BMPs)

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 stormwater. BMPs include structural and non-structural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution-producing activities.

Bioaccumulative

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

Carcinogenic

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

Coefficient of Variation (CV)

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

Daily Discharge

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

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

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

Detected, but Not Quantified (DNQ)

DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dilution Credit

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

Discharge Event

Discharge event is any discharge at a Discharge Point that occurs after a qualifying storm event.

EC25

EC25 is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g., death, immobilization, or serious incapacitation) in 25 percent of the test organisms.

Effluent Concentration Allowance (ECA)

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

Enclosed Bays

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

Estimated Chemical Concentration

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

Estuaries

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters

included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Existing Discharger

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

Inland Surface Waters

All surface waters of the state that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation

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

Instantaneous Minimum Effluent Limitation

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

Maximum Daily Effluent Limitation (MDEL)

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

Median

The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order).

If the number of measurements (n) is odd, then:

$$\text{median} = \frac{X_{(n+1)}}{2}$$

If n is even, then:

$$\text{median} = \frac{\frac{X_n}{2} + \frac{X_{n+1}}{2}}{2}$$

(i.e., the midpoint between the (n/2 and ((n/2)+1))).

Median Monthly Effluent Limitation (MMEL)

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

Method Detection Limit (MDL)

MDL is the minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 Code of Federal Regulations (CFR). part 136, Attachment B.

Methylene Blue Activated Substances (MBAS)

Methylene blue active substances (MBAS) are anionic surfactants that can be detected by colorimetric or color reaction methods. An MBAS assay is a type of analysis that makes use of a substance called methylene blue in order to detect the existence of foaming agents, detergents as well as other anionic substances in water under testing. Surfactants disturb the surface tension which affects insects and can affect gills in aquatic life. With the MBAS assay method, undesirable components in water samples can be detected appropriately.

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 Los Angeles Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and

implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention

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

Qualifying Storm Event

When precipitation occurs of 0.1 inch of rainfall or greater in a 24- hour period preceded by at least 72 hours of dry weather.

Reporting Level (RL)

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

Significant Storm Event

A continuous discharge of stormwater for a minimum of one hour, or the intermittent discharge of stormwater for a minimum of three hours in a 12-hour period.

Source of Drinking Water

Any water designated as municipal or domestic supply (MUN) in the Los Angeles Water Board Basin Plan.

Standard Deviation (σ)

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

$$\text{Standard Deviation } (\sigma) = \frac{\sum (X - \mu)^2}{(n - 1)^{0.5}}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

Stormwater

Stormwater includes runoff, snowmelt runoff, and stormwater surface runoff. For the purposes of this Order, stormwater also includes any discharge from the stormwater detention ponds at Discharge Points 011 and 018.

Toxicity Reduction Evaluation (TRE)

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

Trash

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

ACRONYMS AND ABBREVIATIONS

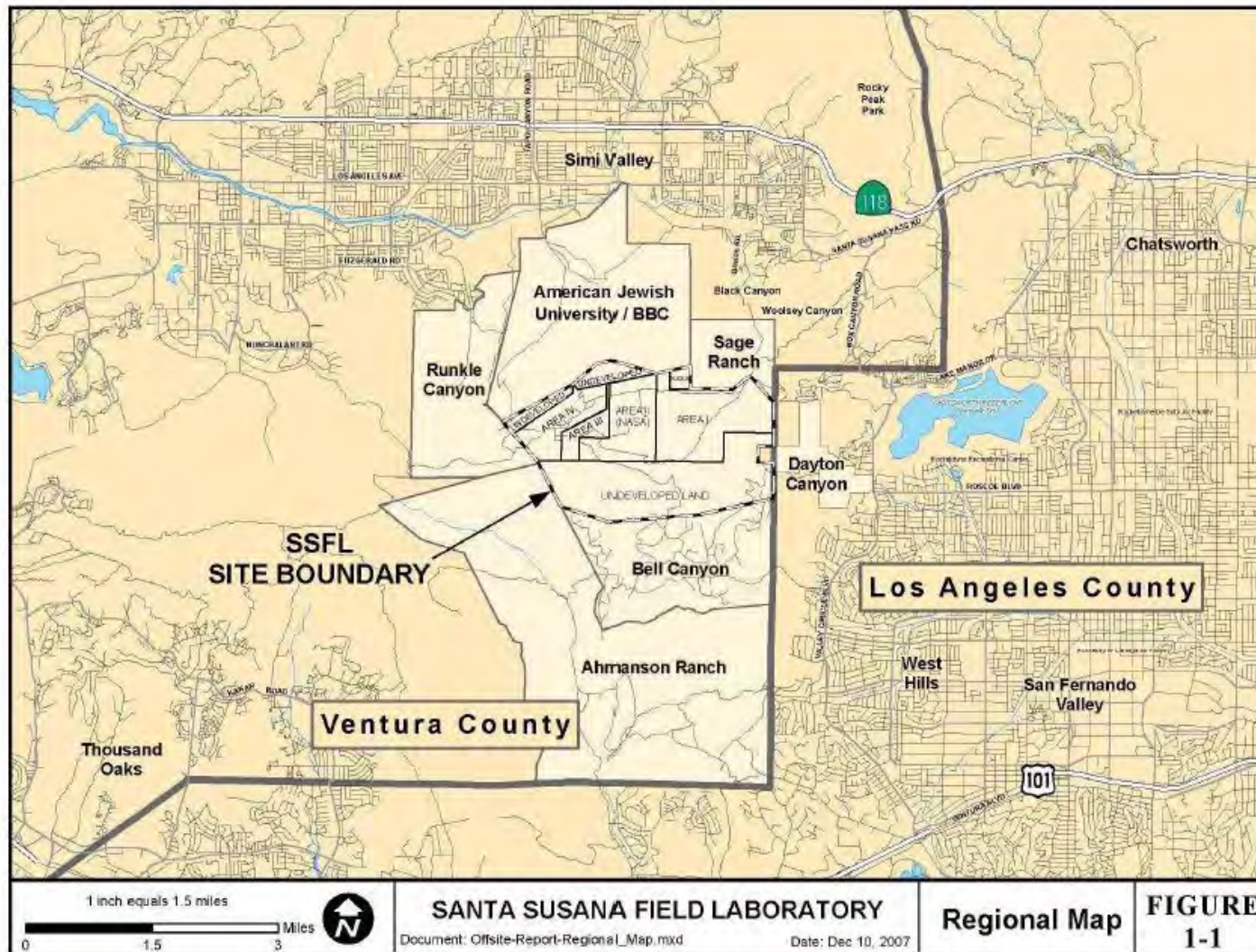
AMEL	Average Monthly Effluent Limitation
B	Background Concentration
Basin Plan	<i>Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties</i>
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BEF	Bioaccumulation Factor
BMP	Best Management Practices
BMPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BPT	Best practicable treatment control technology
BOD	Biochemical Oxygen Demand 5-day @ 20 °C
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFU	Colony Forming Units
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC / Water Code	California Water Code
Discharger	The Boeing Company
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified,
DOE	U.S. Department of Energy
DTSC	Department of Toxics Substances Control
ECA	Effluent Concentration Allowance
ELG	Effluent Limitations, Guidelines and Standards
Facility	Santa Susana Field Laboratory
GETS	Groundwater Extraction and Treatment System
IWC	In-stream Waste Concentration
LTA	Long-term Average
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MDL	Minimum Detectable Limit
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MMEL	Monthly Median Effluent Limitation
MPN	Most Probable Number
MRP	Monitoring and Reporting Program
ND	Not Detected
NASA	National Aeronautics and Space Administration

NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NTR	National Toxics Rule
NTU	Nephelometric Turbidity Unit
OAL	Office of Administrative Law
OC	Organochlorine
Ocean Plan	<i>Water Quality Control Plan for Ocean Waters of California</i>
pCi/L	picoCuries per liter
PCBs	Polychlorinated Biphenyls
pg/L	picograms per liter
PMP	Pollutant Minimization Program
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
REC-1	Water Contact Recreation
RL	Reporting Limit
RPA	Reasonable Potential Analysis
SCP	Spill Contingency Plan
SIP	State Implementation Policy (<i>Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California</i>)
SMR	Self-Monitoring Reports
SPCC	Spill Prevention Control and Countermeasures Plan
SSFL	Santa Susana Field Laboratory
State Water Board	California State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	Test Acceptability Criteria
TBEL	Technology-based Effluent Limitation
TEF	Toxicity Equivalent Factor
TEQ	Toxicity Equivalent
Thermal Plan	<i>Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California</i>
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TR	Total Recoverable
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document (<i>Technical Support Document for Water Quality-based Toxics Control</i> (EPA/505/2-90-001,1991)
TSS	Total Suspended Solids
TST	Test of Significant Toxicity
U.S. EPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Waste Load Allocations

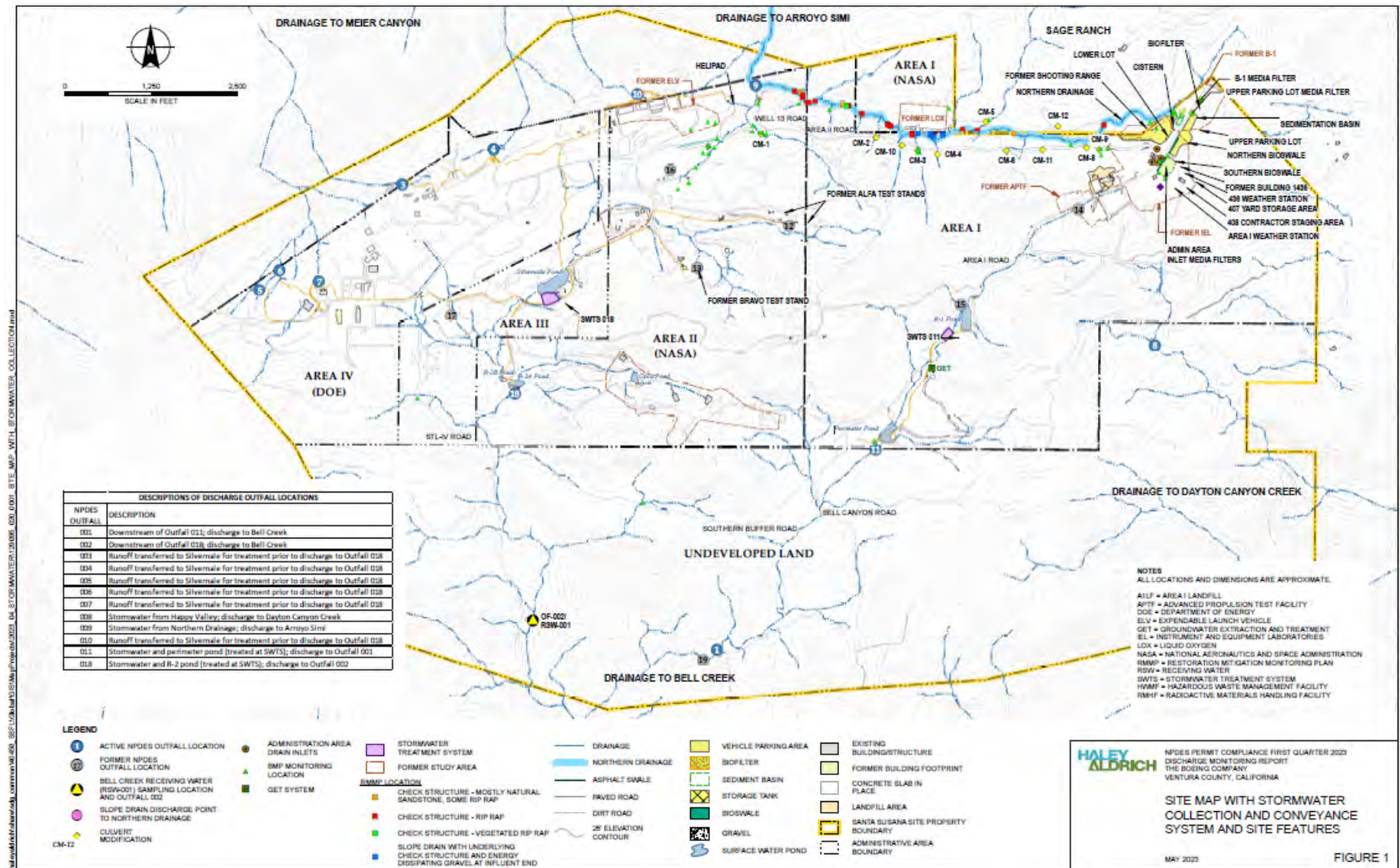
WQBELs
WQO

Water Quality-Based Effluent Limitations
Water Quality Objective

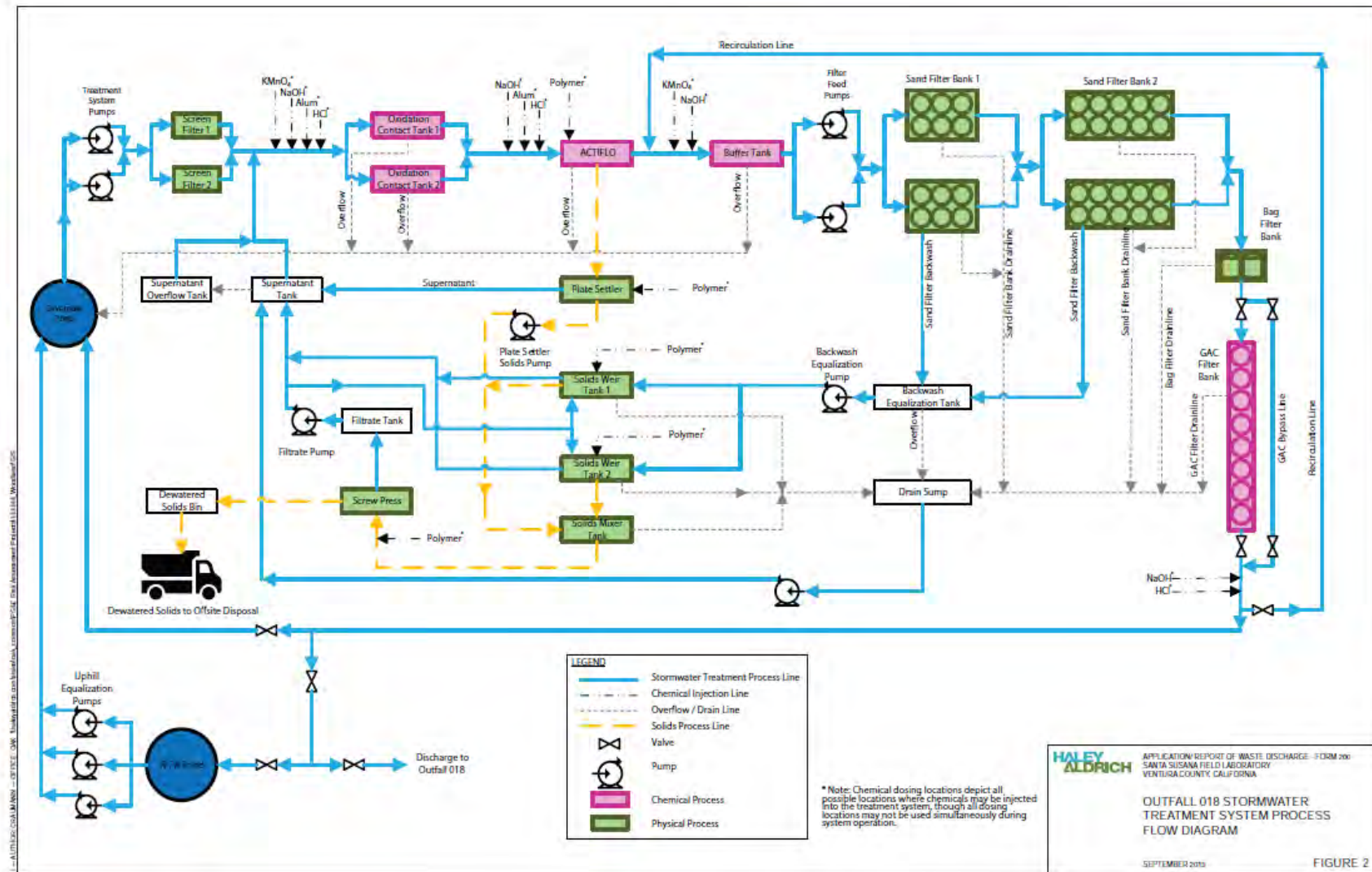
ATTACHMENT B-1 – FACILITY LOCATION MAP



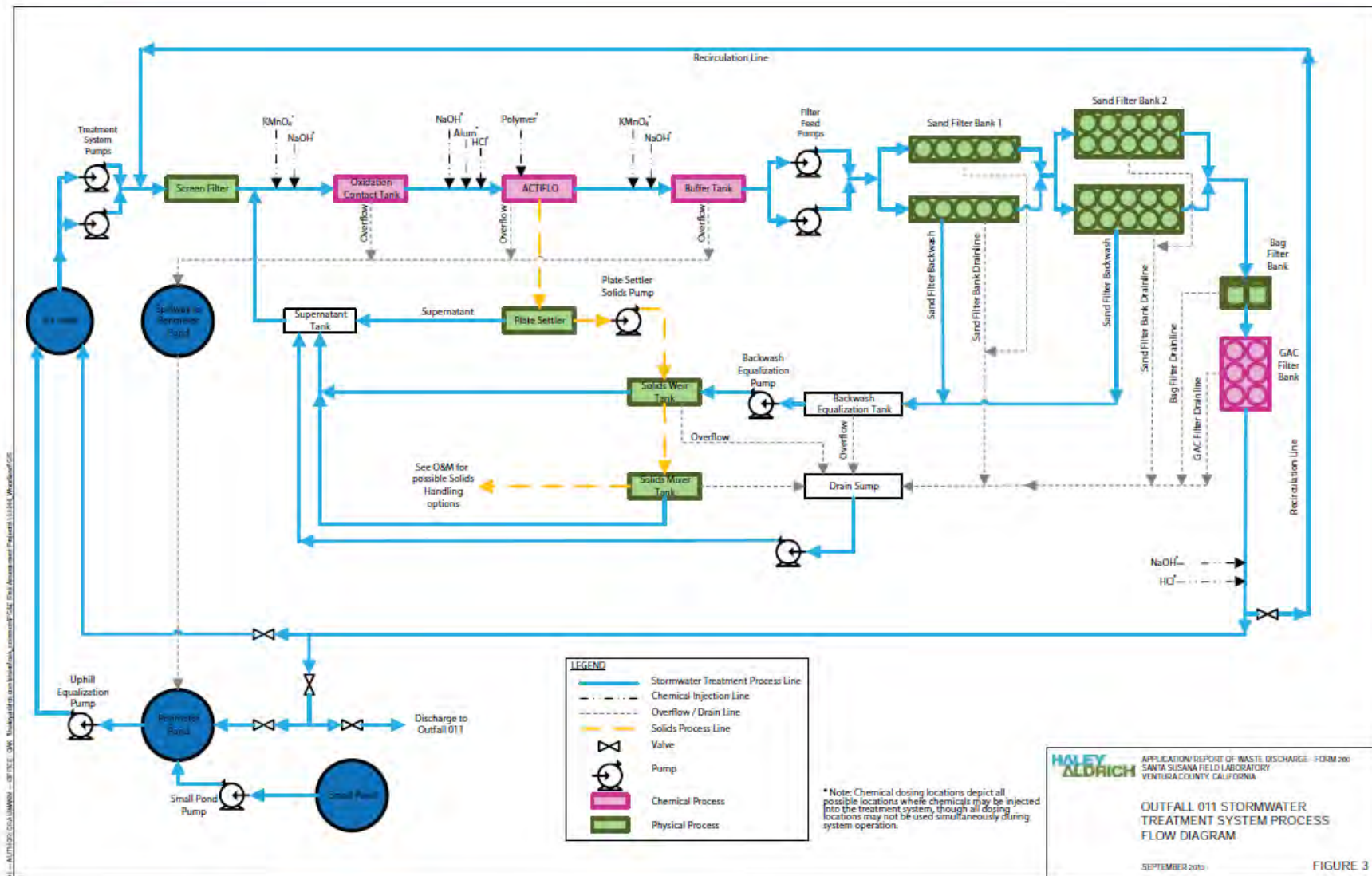
ATTACHMENT B-2 – FACILITY SITE MAP



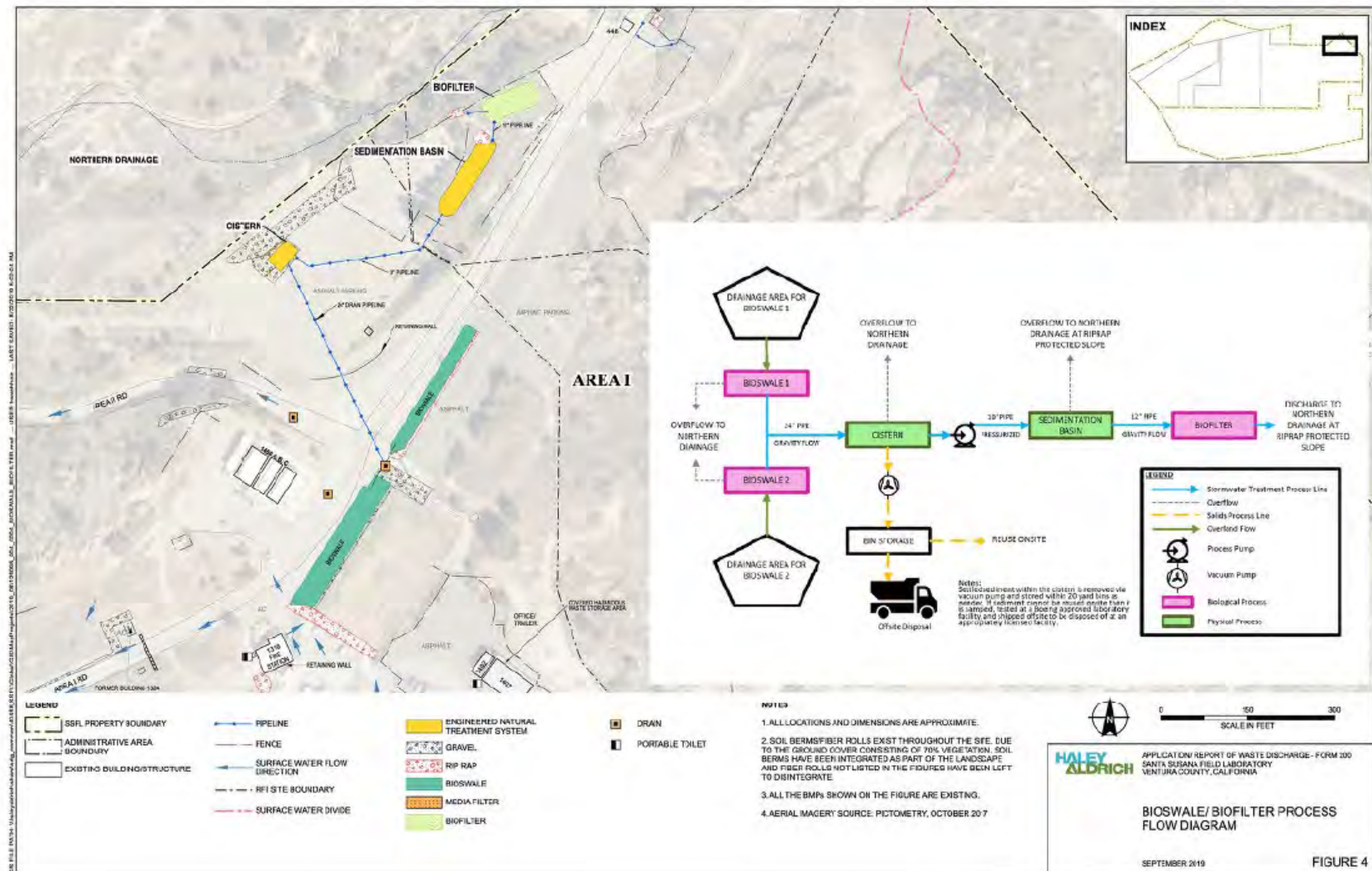
ATTACHMENT C-1 – STORMWATER TREATMENT SYSTEM FLOW SCHEMATIC DISCHARGE POINT 018



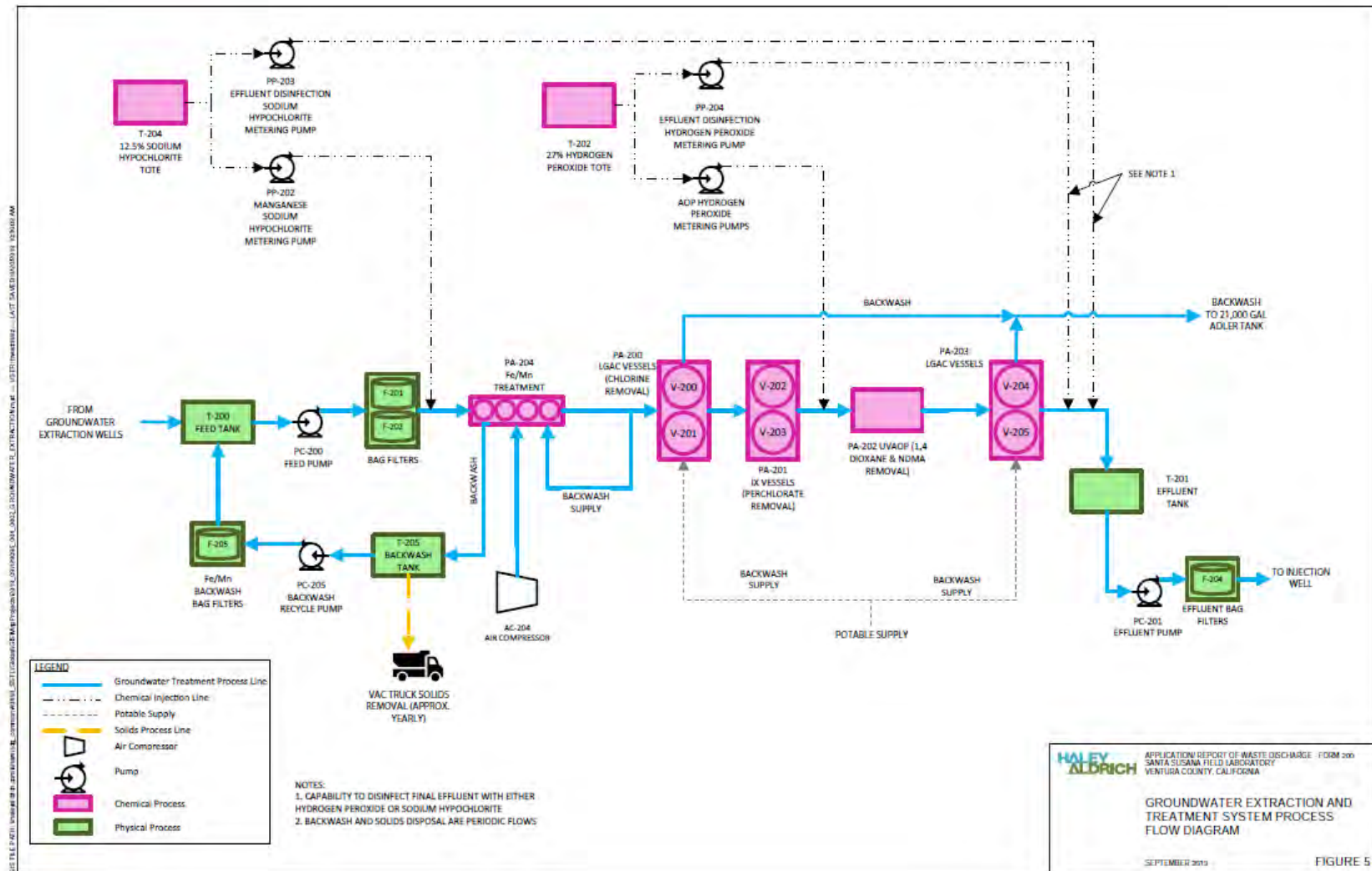
ATTACHMENT C-2 – STORMWATER TREATMENT SYSTEM FLOW SCHEMATIC DISCHARGE POINT 011



ATTACHMENT C-3 – BIOSWALE / BIOFILTER FLOW SCHEMATIC AREA I



ATTACHMENT C-4 – GROUNDWATER EXTRACTION TREATMENT SYSTEM FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply

- 1.1.1. 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. (Title 40 of the Code of Federal Regulations (40 CFR) § 122.41(a); California Water Code (CWC), §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
- 1.1.2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)

1.2. 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 CFR § 122.41(c).)

1.3. Duty to Mitigate

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

1.4. 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 CFR § 122.41(e).)

1.5. Property Rights

- 1.5.1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR § 122.41(g).)
- 1.5.2. 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 CFR § 122.5(c).)

1.6. Inspection and Entry

The Discharger shall allow the Los Angeles Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 CFR § 122.41(i); CWC, §§ 13267, 13383):

- 1.6.1. 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 CFR § 122.41(i)(1); CWC, §§ 13267, 13383);
- 1.6.2. 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 CFR § 122.41(i)(2); CWC, §§ 13267, 13383);
- 1.6.3. 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 CFR § 122.41(i)(3); CWC, §§ 13267, 13383); and
- 1.6.4. 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 CFR § 122.41(i)(4); CWC, §§ 13267, 13383.)

1.7. Bypass

1.7.1. Definitions

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

- 1.7.2. 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 1.7.3, 1.7.4, and 1.7.5 below. (40 CFR § 122.41(m)(2).)
- 1.7.3. Prohibition of bypass. Bypass is prohibited, and the Los Angeles Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):

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

- b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and
 - c. The Discharger submitted notice to the Los Angeles Water Board's required under Standard Provisions – Permit Compliance 1.7.5 below. (40 CFR § 122.41(m)(4)(i)(C).)
- 1.7.4. The Los Angeles Water Board may approve an anticipated bypass, after considering its adverse effects, if the Los Angeles Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance 1.7.3 above. (40 CFR § 122.41(m)(4)(ii).)
- 1.7.5. 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. As of December 21, 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(i).)
 - b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). As of December 21, 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(ii).)

1.8. 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 CFR § 122.41(n)(1).)

- 1.8.1. 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 1.8.2 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 CFR § 122.41(n)(2).)
- 1.8.2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly

signed, contemporaneous operating logs or other relevant evidence that (40 CFR § 122.41(n)(3)):

- a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR § 122.41(n)(3)(i));
 - b. The permitted facility was, at the time, being properly operated (40 CFR § 122.41(n)(3)(ii));
 - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 CFR § 122.41(n)(3)(iv).)
- 1.8.3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR § 122.41(n)(4).)

2. STANDARD PROVISIONS – PERMIT ACTION

2.1. 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 CFR § 122.41(f).)

2.2. 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 CFR § 122.41(b).)

2.3. Transfers

This Order is not transferable to any person except after notice to the Los Angeles Water Board. The Los Angeles 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 CFR §§ 122.41(l)(3), 122.61.)

3. STANDARD PROVISIONS – MONITORING

- 3.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1).)
- 3.2. Monitoring must be conducted according to test procedures approved under 40 CFR part 136 for the analyses of pollutants unless another method is required under 40 CFR chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 CFR part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:

- 3.2.1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
- 3.2.2. The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter 1, subchapter N for the measured pollutant or pollutant parameter. In the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR part 136, or otherwise required under 40 CFR chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 CFR §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

4. STANDARD PROVISIONS – RECORDS

- 4.1. 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 Los Angeles Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2).)
- 4.2. Records of monitoring information shall include:
 - 4.2.1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));
 - 4.2.2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));
 - 4.2.3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));
 - 4.2.4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));
 - 4.2.5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and
 - 4.2.6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)
- 4.3. Claims of confidentiality for the following information will be denied (40 CFR § 122.7(b)):
 - 4.3.1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and
 - 4.3.2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

5. STANDARD PROVISIONS – REPORTING

5.1. Duty to Provide Information

The Discharger shall furnish to the Los Angeles Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Los Angeles 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 Los Angeles Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 CFR § 122.41(h); Wat. Code, §§ 13267, 13383.)

5.2. Signatory and Certification Requirements

- 5.2.1. All applications, reports, or information submitted to the Los Angeles Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 CFR § 122.41(k).)
- 5.2.2. 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 CFR § 122.22(a)(1).)
- 5.2.3. All reports required by this Order and other information requested by the Los Angeles Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting 5.2.2 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 5.2.2 above (40 CFR § 122.22(b)(1));
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative

may thus be either a named individual or any individual occupying a named position.) (40 CFR § 122.22(b)(2)); and

- c. The written authorization is submitted to the Los Angeles Water Board and State Water Board. (40 CFR § 122.22(b)(3).)

5.2.4. If an authorization under Standard Provisions – Reporting 5.2.3 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 5.2.3 above must be submitted to the Los Angeles Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)

5.2.5. Any person signing a document under Standard Provisions – Reporting 5.2.2 or 5.2.3 above shall make the following certification:

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

5.2.6. Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting 5.2, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

5.3. Monitoring Reports

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

5.3.2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Los Angeles Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(l)(4)(i).)

5.3.3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR chapter 1, subchapter N, the results of such monitoring shall be included in the calculation

and reporting of the data submitted in the DMR or reporting form specified by the Los Angeles Water Board or State Water Board. (40 CFR § 122.41(l)(4)(ii).)

- 5.3.4. Calculations for all limitations, which require an averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR § 122.41(l)(4)(iii).)

5.4. 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 CFR § 122.41(l)(5).)

5.5. Twenty-Four Hour Reporting

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

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

As of December 21, 2023, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Los Angeles Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 The reports shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Los Angeles 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 CFR § 122.41(l)(6)(i).)

- 5.5.2. 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 CFR § 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(B).)

5.5.3. The Los Angeles Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR § 122.41(l)(6)(ii)(B).)

5.6. Planned Changes

The Discharger shall give notice to the Los Angeles 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 CFR § 122.41(l)(1)):

- 5.6.1. 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 CFR § 122.41(l)(1)(i)); or
- 5.6.2. 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 CFR § 122.41(l)(1)(ii)); or
- 5.6.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels 7.1.1) (40 CFR § 122.41(l)(1)(ii)).

5.7. Anticipated Noncompliance

The Discharger shall give advance notice to the Los Angeles Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR § 122.41(l)(2).)

5.8. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 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 5.5 and the applicable required data in appendix A to 40 CFR part 127. The Los Angeles 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 CFR § 122.41(l)(7)).

5.9 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 Los Angeles Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information (40 CFR § 122.41(l)(8)).

5.10. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 CFR part 127 to the initial recipient defined in 40 CFR 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 CFR section 127.2(c)]. U.S. EPA will update and maintain this listing (40 CFR § 122.41(l)(9)).

6. STANDARD PROVISIONS – ENFORCEMENT

- 6.1. The Los Angeles Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.
- 6.2. 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 CWA, 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 CWA, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the CWA, 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 CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions [40 CFR § 122.41(a)(2)] [CWC sections 13385 and 13387].
- 6.3 Any person may be assessed an administrative penalty by the Administrator of U.S. EPA, the Los Angeles Water Board, or State Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this CWA, or any permit condition or limitation

implementing any of such sections in a permit issued under section 402 of the CWA. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000 [40 CFR § 122.41(a)(3)].

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

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.1. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Los Angeles Water Board as soon as they know or have reason to believe (40 CFR § 122.42(a)):

- 7.1.1. 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 CFR § 122.42(a)(1)):
- a. 100 micrograms per liter (µg/L) (40 CFR § 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 CFR § 122.42(a)(1)(ii));
 - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR § 122.42(a)(1)(iii)); or
 - d. The level established by the Los Angeles Water Board in accordance with section 122.44(f) (40 CFR § 122.42(a)(1)(iv)).
- 7.1.2. 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 CFR § 122.42(a)(2)):

- a. 500 micrograms per liter ($\mu\text{g/L}$) (40 CFR § 122.42(a)(2)(i));
- b. 1 milligram per liter (mg/L) for antimony (40 CFR § 122.42(a)(2)(ii));
- c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR § 122.42(a)(2)(iii)); or
- d. The level established by the Los Angeles Water Board in accordance with section 122.44(f) (40 CFR § 122.42(a)(2)(iv)).

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

TABLE OF CONTENTS

1. GENERAL MONITORING PROVISIONS	2
2. MONITORING LOCATIONS.....	5
3. INFLUENT MONITORING REQUIREMENTS	7
3.1. Monitoring Location INF-001 & INF-002.....	7
4. EFFLUENT MONITORING REQUIREMENTS	10
4.1. Monitoring Locations EFF-001, EFF-002, EFF-011, EFF-018.....	10
4.2. Monitoring Locations EFF-003, EFF-004, EFF-005, EFF-006, EFF-007, EFF-008, EFF-009, and EFF-010	15
5. CHRONIC WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS.....	18
5.1. Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity.....	18
5.2. Sample Volume and Holding Time.....	18
5.3. Chronic Freshwater Species and Test Methods.....	18
5.4. Species Sensitivity Screening	19
5.5. Quality Assurance and Additional Requirements	19
5.6. Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.....	21
5.7. Toxicity Reduction Evaluation (TRE) Process.....	21
5.8. Reporting.....	23
6. LAND DISCHARGE MONITORING REQUIREMENTS – Not Applicable.....	23
7. RECYCLING MONITORING REQUIREMENTS – Not Applicable.....	23
8. RECEIVING WATER MONITORING REQUIREMENTS	23
8.1. Receiving Water Monitoring Locations RSW-001, RSW-002, and RSW-003.....	23
8.2. Receiving Water Surveys.....	26
8.3. Upstream Monitoring at RSW-003.....	27
9. OTHER MONITORING REQUIREMENTS	27
9.1. Sediment Sampling	27
9.2. Rainfall Monitoring.....	28
9.3. SWPPP, BMP, and Spill Contingency Plan Status and Effectiveness Report.....	28
10. REPORTING REQUIREMENTS	28
10.1. General Monitoring and Reporting Requirements	28
10.2. Self-Monitoring Reports (SMRs).....	29
10.3. Discharge Monitoring Reports (DMRs).....	31
10.4. Other Reports.....	32

TABLE OF TABLES

Table E-1. Monitoring Station Locations	E-5
Table E-2. Influent Monitoring.....	E-7
Table E-3. Effluent Monitoring at Locations EFF-001, EFF-002, EFF-011, EFF-018	E-10
Table E-4. Effluent Monitoring at Monitoring Locations EFF-003, EFF-004, EFF-005, EFF-006, EFF-007, EFF-008, EFF-009, and EFF-010.....	E-15
Table E-5. USEPA Test Methods and Test Acceptability Criteria.....	E-20
Table E-6. Receiving Water Monitoring Requirements for RSW-001 and RSW-002.....	E-24
Table E-7. Receiving Water Sediment Monitoring Requirements.....	E-27
Table E-8. Monitoring Periods and Reporting Schedule.....	E-30

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP NO. 6027)

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

1. GENERAL MONITORING PROVISIONS

- 1.1. Effluent sampling stations shall be established for the point of discharge and shall be located where representative samples of the treated effluent can be obtained.
- 1.2. Effluent samples shall be taken downstream of any treatment works and prior to mixing with the receiving waters.
- 1.3. The Los Angeles 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.
- 1.4. Pollutants shall be analyzed using the analytical methods described in 40 CFR 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 Los Angeles Water Board or the State Water Resources Control Board (State Water Board).
- 1.5. **Laboratory Certification.** Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board, Division of Drinking Water Environmental Laboratory Accreditation Program (ELAP) in accordance with the provision of Water Code section 13176 or approved by the Executive Officer 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.
- 1.6. Pollutants shall be analyzed within allowable holding time limits as specified in 40 CFR 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 Los Angeles 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.
- 1.7. 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. Each monitoring report must affirm in writing that “with the exception of field tests, all analyses were conducted at a laboratory certified for such analyses by the State Water Board, Division of Drinking Water, Environmental Laboratory Accreditation Program or approved by the Executive Officer and in accordance with current U.S. EPA guideline procedures or as specified in this MRP.”
- 1.8. 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 and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:

- 1.8.1. An actual numerical value for sample results greater than or equal to the ML; or
- 1.8.2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,
- 1.8.3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

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

Current MLs 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*, (State Implementation Policy or SIP), February 24, 2005, Appendix 4.

- 1.9. 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 and 136; *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, reporting levels (RLs), and method detection limits (MDLs).
- 1.10. 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 CFR 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 MDLs.

The Los Angeles Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Appendix 4 of the SIP to be included in the Discharger's permit in any of the following situations:

- a. When the pollutant under consideration is not included in Appendix 4 of the SIP;
- b. When the Discharger and Los Angeles 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);
- c. When the Discharger agrees to use an ML that is lower than that listed in Appendix 4 of the SIP;

- d. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 of the SIP, and proposes an appropriate ML for their matrix; or,
- e. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the 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 Los Angeles 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.

- 1.11. Field analyses with short sample holding time such as pH, total chlorine residual, 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 CFR 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 Los Angeles 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 Los Angeles Water Board as part of the corresponding regular monitoring report.
- 1.12. All analyses shall be accompanied by the chain of custody, including but not limited to date and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.
- 1.13. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Unless otherwise specified in the analytical method, duplicate samples must be analyzed at a frequency of 5% (1 in 20 samples) with at least one if there are fewer than 20 samples in a batch. A batch is defined as a single analytical run encompassing no more than 24 hours from start to finish. A similar frequency shall be maintained for analyzing spiked samples.
- 1.14. 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.

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

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

- 1.16. In the event stormwater or spills in the areas permitted by this Order are transported to a different disposal site during the reporting period, the following shall be reported in the monitoring report:

- a. Types of stormwater and spilled wastes and quantity of each;
- b. Name and address for each hauler of wastes (or method of transport if other than by hauling); and
- c. Location of the final point(s) of disposal for each type of waste.

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

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

- 1.18. Each monitoring report must affirm in writing that *“all analyses were conducted at a laboratory certified for such analyses by the State Water Board, Division of Drinking Water, Environmental Laboratory Accreditation Program or approved by the Executive Officer and in accordance with current U.S. EPA guideline procedures or as specified in this MRP.”*

2. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Bell Creek
002	EFF-002	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Bell Creek
003	EFF-003	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Arroyo Simi (if discharged to Arroyo Simi)

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
004	EFF-004	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Arroyo Simi (if discharged to Arroyo Simi)
005	EFF-005	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Arroyo Simi (if discharged to Arroyo Simi)
006	EFF-006	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Arroyo Simi (if discharged to Arroyo Simi)
007	EFF-007	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Arroyo Simi (if discharged to Arroyo Simi)
008	EFF-008	Effluent shall be sampled at the point of discharge into Dayton Canyon Creek, a tributary to Bell Creek
009	EFF-009	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Arroyo Simi
010	EFF-010	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Arroyo Simi (if discharged to Arroyo Simi)
011	EFF-011	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Bell Creek
012 thru 017		No longer used
018	EFF-018	Effluent shall be sampled at the point of discharge into the unnamed canyon tributary to Bell Creek
019		No longer used. Treated groundwater is being injected, if upset in system, flows would be captured at EFF-011
020		No longer proposed (will not be constructed)
INF-001	INF-001	Discharge Point 11 SWTS Influent
INF-002	INF-002	Discharge Point 18 SWTS Influent
Receiving water station 1: RSW-001	RSW-001	Receiving water sampling requirements are satisfied by sampling from EFF-001, EFF-002, EFF-011, or EFF-018 (surveys, as described in Section 8.2, also apply to these effluent monitoring locations).
Receiving water station 2: RSW-002	RSW-002	A sampling station has been established in Frontier Park downstream of the discharge point into Arroyo Simi, the receiving water. 118°45'16.94"W, 34°15'54.04"N (34.265011 Latitude, -118.754706 Longitude)
Receiving water station 3: RSW-003	RSW-003	A sampling station in the Arroyo Simi upstream from discharges from the Facility or impacts by discharges from the Facility. 118°42'32.3"W, 34°16'6.7"N (34.268528 Latitude, -118.708972 Longitude)

3. INFLUENT MONITORING REQUIREMENTS

The Discharger shall initiate influent monitoring at Discharge Point 11 and Discharge Point 18 Stormwater Treatment Systems (SWTS) on-site. Influent monitoring is required to continue to screen potential constituents that may be present in runoff from different areas of the site and discharging to the R-1 and Silvernale detention ponds, which then discharge to Discharge Points 011 and 018, respectively. Monitoring locations shall be established and designated as INF-001 for the influent pumped from the R-1 pond to the SWTS at Discharge Point 011 and INF-002 for the influent pumped from the Silvernale pond to the SWTS at Discharge Point 018. Monitoring of pollutants shall be consistent with the Effluent Monitoring pollutants as identified in Table E-3 for EFF-001, EFF-002, EFF-011, and EFF-018. In addition, the Discharger shall conduct influent monitoring for PFAS and the additional remaining constituents of potential concern (COPCs) as identified DTSC for all media in Attachment 1 of Appendix D of the 2014 Standardized Risk Assessment (SRAM), with updates as identified in Table 12-1 of Appendix F of the 2022 SRAM. The additional influent monitoring of PFAS and SRAM pollutants is only limited to 1st and 2nd discharge events of the first year. Should the Discharger have readily available data collected of the water in the ponds as part of the RCRA Facility Investigation program within the last 10 years for the constituents listed in the SRAM, may be submitted in place of the additional monitoring required of the influent. Samples shall be collected during the initiation of the treatment system for calibration when a discharge event is anticipated from the SWTSs. Samples shall not be collected while the treatment system is in recirculation mode as these samples would not be representative.

3.1. Monitoring Location INF-001 & INF-002

Table E-2. Influent Monitoring

Parameters	Units	Sample Type	Sampling Frequency	Notes
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	Grab	1/Discharge Event	a
Oil and Grease	mg/L	Grab	1/Discharge Event	a
pH	standard units	Grab	1/Discharge Event	a
Aluminum	mg/L	Grab	1/Year	a
Ammonia – N	mg/L	Grab	1/Discharge Event	a
Barium	mg/L	Grab	1/Year	a
Boron	mg/L	Grab	1/Year	a
Chloride	mg/L	Grab	1/Discharge Event	a
Chlorine, Total Residual	mg/L	Grab	1/Year	a
Chronic Toxicity	Pass or Fail and % Effect (TST)	Grab	1/Year	b
Cobalt	µg/L	Grab	1/Year	a
E. Coli	CFU/100mL or MPN/100mL	Grab	1/Year	a

Parameters	Units	Sample Type	Sampling Frequency	Notes
Conductivity at 25°C	µmhos/cm	Grab	1/Discharge Event	a
Detergents (as MBAS)	mg/L	Grab	1/Discharge Event	a
Dissolved Oxygen	mg/L	Grab	1/Discharge Event	a
Fluoride	mg/L	Grab	1/Year	a
Hardness (as mg/L CaCO ₃)	mg/L	Grab	1/Year	a
Iron	mg/L	Grab	1/Year	a
Manganese	µg/L	Grab	1/Year	a
Nitrate+Nitrite-N	mg/L	Grab	1/Discharge Event	a
Nitrate-N	mg/L	Grab	1/Discharge Event	a
Nitrite-N	mg/L	Grab	1/Discharge Event	a
Perchlorate	µg/L	Grab	1/Year	a
Sulfate	mg/L	Grab	1/Discharge Event	a
Temperature	°F	Grab	1/Discharge Event	a
Total Dissolved Solids	mg/L	Grab	1/Discharge Event	a
Total Organic Carbon	mg/L	Grab	1/Year	a
Turbidity	NTU	Grab	1/Discharge Event	a
Vanadium	µg/L	Grab	1/Year	a
Radioactivity – Gross Alpha	pCi/L	Grab	1/Discharge Event	c
Radioactivity – Gross Beta	pCi/L	Grab	1/Discharge Event	c
Combined Radium 226 & Radium 228	pCi/L	Grab	1/Discharge Event	c
Tritium (H-3)	pCi/L	Grab	1/Discharge Event	c
Strontium-90	pCi/L	Grab	1/Discharge Event	c
K-40 (Potassium-40)	pCi/L	Grab	1/Discharge Event	c
CS-137	pCi/L	Grab	1/Discharge Event	c
Uranium	pCi/L	Grab	1/Discharge Event	c
Monomethyl hydrazine	µg/L	Grab	1/Discharge Event	a
cis-1,2-Dichloroethene	µg/L	Grab	1/Discharge Event	a
1,4-Dioxane	µg/L	Grab	1/Discharge Event	a
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	Grab	1/Discharge Event	a
1,2-Dichloro-1,1,2-trifluoroethane	µg/L	Grab	1/Discharge Event	a
Cyclohexane	µg/L	Grab	1/Discharge Event	a
Antimony, TR	µg/L	Grab	1/Year	a
Arsenic, TR	µg/L	Grab	1/Year	a
Beryllium, TR	µg/L	Grab	1/Year	a
Cadmium, TR	µg/L	Grab	1/Discharge Event	a

Parameters	Units	Sample Type	Sampling Frequency	Notes
Chromium (VI), TR	µg/L	Grab	1/Year	a
Copper, TR	µg/L	Grab	1/Discharge Event	a
Lead, TR	µg/L	Grab	1/Discharge Event	a
Mercury, TR	µg/L	Grab	1/Discharge Event	d
Nickel, TR	µg/L	Grab	1/Year	a
Selenium, TR	µg/L	Grab	1/Discharge Event	a
Silver, TR	µg/L	Grab	1/Year	a
Thallium, TR	µg/L	Grab	1/Year	a
Zinc, TR	µg/L	Grab	1/Discharge Event	a
Cyanide	µg/L	Grab	1/Discharge Event	a
TCDD Equivalents	µg/L	Grab	1/Discharge Event	a
1,2-Dichloroethane	µg/L	Grab	1/Discharge Event	a
1,1-Dichloroethylene	µg/L	Grab	1/Discharge Event	a
Trichloroethylene	µg/L	Grab	1/Discharge Event	a
Pentachlorophenol	µg/L	Grab	1/Discharge Event	a
2,4,6-Trichlorophenol	µg/L	Grab	1/Discharge Event	a
Bis(2-ethylhexyl) phthalate	µg/L	Grab	1/Discharge Event	a
2,4-Dinitrotoluene	µg/L	Grab	1/Discharge Event	a
Indeno(1,2,3-cd) Pyrene	µg/L	Grab	1/Discharge Event	a
N-Nitrosodimethylamine	µg/L	Grab	1/Discharge Event	a
alpha-BHC	µg/L	Grab	1/Discharge Event	a
4,4'-DDE	µg/L	Grab	1/Discharge Event	a
Heptachlor	µg/L	Grab	1/Discharge Event	a
PCBs	µg/L	Grab	1/Year	a
Remaining Priority Pollutants (excluding asbestos)	µg/L	Grab	1/Year	e
<u>PFAS</u>	<u>ng/l</u>	<u>Grab</u>	<u>1st & 2nd discharge events of the first year</u>	<u>f</u>
<u>Additional remaining COPCs for all media as identified in the SRAM</u>	<u>Varies (mg/L, µg/L, and ng/l based on constituents)</u>	<u>Grab</u>	<u>1st & 2nd discharge events of the first year</u>	<u>a and g</u>

Footnotes for Table E-2

a. Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136. Where no methods are specified for a given pollutant, those methods must be approved by the Los Angeles Water Board or the State Water Board. For any pollutant whose effluent limitation is lower than all the MLs specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

- b. Refer to section E-5, Whole Effluent Toxicity Testing Requirements.
- c. Analyze these radiochemicals by the following USEPA testing methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium- 90, method 908.0 for uranium, and method 901.0 or 901.1 for Cesium.
- d. Mercury shall be analyzed using EPA method 1631E, per 40 CFR part 136.
- e. Priority Pollutants are those constituents referred to in 40 CFR section 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423.
- f. Department of Defense's Quality System Manual (DOD QSM (version 5.1 or higher)) or other ELAP-accredited methodologies for the analysis of PFAS in wastewaters shall be used to meet the required reporting limit of 50 ng/L. The ELAP accredited method for each group of compounds will specify which specific analytes shall be measured. All analytes that can be measured using the selected ELAP-accredited method shall be analyzed.
- g. All constituents that are identified in Attachment 1 of Appendix D of the 2014 SRAM, with updates in Table 12-1 of Appendix F of the 2022 SRAM, for all media but not listed in Table E-2 should be monitored.

End of Footnotes for Table E-2

4. EFFLUENT MONITORING REQUIREMENTS

4.1. Monitoring Locations EFF-001, EFF-002, EFF-011, EFF-018

The Discharger shall monitor discharges at Effluent Monitoring Stations EFF-001, EFF-002, EFF-011 and EFF-018 prior to discharge at Discharge Points 001, 002, 011, and 018, respectively, as follows. Paired samples may be collected when feasible for locations of the same drainage (i.e, Discharge Points 001 and 011; and, Discharge Points 002 and 018). 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-3. Effluent Monitoring at Locations EFF-001, EFF-002, EFF-011, EFF-018

Parameters	Units	Sample Type (Note a)	Sampling Frequency (Note b)	Notes
Total Flow	Gallons/Day	Measure	1/Discharge Event	c
yesRainfall	Inches	Continuous	Continuous	--
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	Composite	1/Discharge Event	d
Oil and Grease	mg/L	Grab	1/Discharge Event	d
pH	standard units	Grab	1/Discharge Event	d
Total Suspended Solids (TSS)	mg/L	Composite	1/Discharge Event	d
Aluminum	mg/L	Composite	1/Discharge Event	d
Barium	mg/L	Composite	1/Year	d
Boron	mg/L	Composite	1/Year	d
Chloride	mg/L	Composite	1/Discharge Event	d
Chlorine, Total Residual	mg/L	Grab	1/Year	d

Parameters	Units	Sample Type (Note a)	Sampling Frequency (Note b)	Notes
Chronic Toxicity	Pass or Fail and % Effect (TST)	Grab	1 st & 2 nd Rain Events of each Year	e
Cobalt	µg/L	Composite	1/Year	d
E. coli	CFU/100mL or MPN/100mL	Grab	1/Year	d
Conductivity at 25 °C	µmhos/cm	Grab	1/Discharge Event	d
Detergents (as MBAS)	mg/L	Composite	1/Discharge Event	d
Dissolved Oxygen	mg/L	Grab	1/Discharge Event	d
Fluoride	mg/L	Composite	1/Year	d
Hardness (as mg/L CaCO ₃)	mg/L	Composite	1/Year	d
Iron	mg/L	Composite	1/Year	d
Manganese	µg/L	Composite	1/Year	d
Ammonia – N	mg/L	Grab	1/Discharge Event	d
Nitrate-N	mg/L	Composite	1/Discharge Event	d
Nitrite-N	mg/L	Composite	1/Discharge Event	d
Nitrate + Nitrite-N	mg/L	Composite	1/Discharge Event	d
Perchlorate	µg/L	Composite	1/Year	d
Settleable Solids	mL/L	Grab	1/Discharge Event	d
Sulfate	mg/L	Composite	1/Discharge Event	d
Temperature	°F	Grab	1/Discharge Event	d
Total Dissolved Solids	mg/L	Composite	1/Discharge Event	d
Total Organic Carbon	mg/L	Composite	1/Year	d
Turbidity	NTU	Composite	1/Discharge Event	d
Vanadium	µg/L	Composite	1/Year	d
Radioactivity – Gross Alpha	pCi/L	Composite	1/Discharge Event	f and g
Radioactivity – Gross Beta	pCi/L	Composite	1/Discharge Event	f and g
Combined Radium 226 & Radium 228	pCi/L	Composite	1/Discharge Event	f and g
Tritium (H-3)	pCi/L	Composite	1/Discharge Event	f and g
Strontium-90	pCi/L	Composite	1/Discharge Event	f and g
K-40 (Potassium-40)	pCi/L	Composite	1/Discharge Event	f and g
CS-137	pCi/L	Composite	1/Discharge Event	f and g
Uranium	pCi/L	Composite	1/Discharge Event	f and g
Monomethyl hydrazine	µg/L	Grab	1/Discharge Event	d
cis-1,2-Dichloroethene	µg/L	Grab	1/Discharge Event	d
1,4-Dioxane	µg/L	Composite	1/Discharge Event	d
1,1,2-Trichloro-1,2,2- trifluoroethane	µg/L	Composite	1/Discharge Event	d
1,2-Dichloro-1,1,2- trifluoroethane	µg/L	Composite	1/Discharge Event	d

Parameters	Units	Sample Type (Note a)	Sampling Frequency (Note b)	Notes
Cyclohexane	µg/L	Composite	1/Discharge Event	d
Antimony, TR	µg/L	Composite	1/Year	d and h
Arsenic, TR	µg/L	Composite	1/Year	d and h
Beryllium, TR	µg/L	Composite	1/Year	d and h
Cadmium, TR	µg/L	Composite	1/Discharge Event	d and h
Chromium (VI), TR	µg/L	Composite	1/Year	d, h and i
Copper, TR	µg/L	Composite	1/Discharge Event	d and h
Lead, TR	µg/L	Composite	1/Discharge Event	d and h
Mercury, TR	µg/L	Composite	1/Discharge Event	d and h
Nickel, TR	µg/L	Composite	1/Year	d and h
Selenium, TR	µg/L	Composite	1/Discharge Event	d and h
Silver, TR	µg/L	Composite	1/Year	d and h
Thallium, TR	µg/L	Composite	1/Year	d and h
Zinc, TR	µg/L	Composite	1/Discharge Event	d and h
Cyanide	µg/L	Composite	1/Discharge Event	d
TCDD Equivalents	µg/L	Composite	1/Discharge Event	d and j
1,2-Dichloroethane	µg/L	Composite	1/Discharge Event	d
1,1-Dichloroethylene	µg/L	Composite	1/Discharge Event	d
Trichloroethylene	µg/L	Composite	1/Discharge Event	d
Pentachlorophenol	µg/L	Composite	1/Discharge Event	d
2,4,6-Trichlorophenol	µg/L	Composite	1/Discharge Event	d
Benzidine	µg/L	Composite	1/Discharge Event	d
Bis(2-ethylhexyl) phthalate	µg/L	Composite	1/Discharge Event	d
3,3'-Dichlorobenzidine	µg/L	Composite	1/Discharge Event	d
2,4-Dinitrotoluene	µg/L	Composite	1/Discharge Event	d
Indeno(1,2,3-cd) Pyrene	µg/L	Composite	1/Discharge Event	d
N-Nitrosodimethylamine	µg/L	Composite	1/Discharge Event	d
alpha-BHC	µg/L	Composite	1/Discharge Event	d
4,4'-DDE	µg/L	Composite	1/Discharge Event	d
Heptachlor	µg/L	Composite	1/Discharge Event	d
PCBs	µg/L	Grab	1/Year	d and k
Remaining Priority Pollutants (excluding asbestos)	µg/L	Grab or Composite as appropriate	1/Year	d and l

Footnotes for Table E-3

a. Sample type is defined as either grab or composite and sampled as:

- 1) A grab sample within the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the corresponding quarterly report; or

- 2) Composite samples shall be collected as a flow-weighted composite sample over the 24-hour period or the duration of the storm event, whichever is shorter.
- b. A discharge event is any discharge from a Discharge Point that occurs after a qualifying storm event. A qualifying storm event is when precipitation occurs of 0.1 inch of rainfall or greater in a 24-hour period preceded by at least 72 hours of dry weather. No more than one sample per week need be obtained during extended periods of rainfall. Sampling shall be during the first hour of discharge or at the first safe opportunity. The reason for delay shall be included in the report. If there is a discharge event at Discharge Points 001 or 002, prior to a concurrent discharge event from Discharge Points 011 or 018, respectively, then additional samples may be collected from Discharge Point 001 or 002, once there is a corresponding discharge event at Discharge Point 011 or 018. If the rain event is not sufficient to produce flow from the area, the observation must be documented with date, time condition and rainfall amount.
 - c. Flow shall be recorded daily during each period of discharge. Periods of no flow shall also be reported.
 - d. Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136. Where no methods are specified for a given pollutant, those methods must be approved by the Los Angeles Water Board or the State Water Board. For any pollutant whose effluent limitation is lower than all the MLs specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.
 - e. Refer to section E-5, Whole Effluent Toxicity Testing Requirements.
 - f. These radiochemicals shall be analyzed by the following USEPA testing methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, method 908.0 for uranium, and method 901.0 or 901.1 for Cesium.
 - g. The radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, chapter 15, article 5, sections 64442 and 64443, of the California Code of Regulations (CCR), or subsequent revisions. Gross alpha and gross beta analysis must be performed. If gross alpha is greater than 15 pCi/L, radon analysis must be performed.
 - h. Samples analyzed must be unfiltered samples.
 - i. The Discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation it will be considered a violation unless an analysis has been made for hexavalent chromium in a replicate sample and the result is reported within the hexavalent chromium limits.
 - j. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (ML), toxicity equivalency factors (TEFs), and bioaccumulation equivalency factor (BEF) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD equivalents) = $\sum(C_x \times \text{TEF}_x \times \text{BEF})$
where: C_x = concentration of dioxin or furan congener x
 TEF_x = TEF for congener x
 BEF_x = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

- k. Monitoring for PCBs as aroclors and PCBs as congeners are required. PCBs as aroclors shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260, and shall be analyzed using USEPA method 608.3. PCBs as congeners shall be individually quantified (or quantified as mixtures of isomers of a single congener in co-elutions as appropriate) using U.S. EPA proposed method 1668c or using a high-resolution EPA-approved method. U.S. EPA recommends that until the proposed Method 1668c for PCBs is incorporated into 40 CFR § 136, Dischargers should use for discharge monitoring reports/State monitoring reports: (1) U.S. EPA Method 608 for monitoring data, reported as aroclor results, that will be used for assessing compliance with WQBELs (if applicable) and (2) U.S. EPA proposed method 1668c for monitoring data, reported as 44 congener results, that will be used for informational purposes to help assess concentrations in the receiving water. To facilitate interpretation of sediment/fish tissue data and TMDL development, PCB congeners whose analytical characteristics resemble those of PCB-8, 18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 195, 201, 206 and 209 shall be reported as a sum and individually quantified (or quantified as mixtures of isomers of a single congener in co-elutions as appropriate).
- l. Priority Pollutants as defined by the California Toxics Rule (CTR) defined in 40 CFR Part 131.38.

End of Footnotes for Table E-3

4.2. Monitoring Locations EFF-003, EFF-004, EFF-005, EFF-006, EFF-007, EFF-008, EFF-009, and EFF-010

The Discharger shall monitor discharges at Effluent Monitoring Stations EFF-003 through EFF-010 prior to discharge at Discharge Points 003 through 010, respectively, 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-4. Effluent Monitoring at Monitoring Locations EFF-003, EFF-004, EFF-005, EFF-006, EFF-007, EFF-008, EFF-009, and EFF-010

Parameters	Units	Sample Type (Note a)	Sampling Frequency (Note b)	Notes
Total Flow	Gallons/Day	Measure	1/Discharge	c
Rainfall	Inches	Continuous	Continuous	--
Oil and Grease	mg/L	Grab	1/Discharge Event	d
pH	standard units	Grab	1/Discharge Event	d
Total Suspended Solids (TSS)	mg/L	Composite	1/Discharge Event	d
Aluminum	mg/L	Composite	1/Discharge Event	d
Ammonia – N	mg/L	Composite	1/Discharge Event	d
Barium	mg/L	Composite	1/Year	d
Boron	mg/L	Composite	1/Year	d
Chloride	mg/L	Composite	1/Discharge Event	d
Chlorine, Total Residual	mg/L	Composite	1/Year	d
Chronic Toxicity	Pass or Fail and % Effect (TST)	Composite	1 st & 2 nd Rain Events of Each Year	e
Cobalt	µg/L	Composite	1/Year	d
E. coli	CFU/100mL or MPN/100mL	Grab	1/Year	d
Detergents (as MBAS)	mg/L	Composite	1/Discharge Event	d
Dissolved Oxygen	mg/L	Grab	1/Discharge Event	d
Fluoride	mg/L	Composite	1/Year	d
Hardness (as mg/L CaCO ₃)	mg/L	Composite	1/Year	d
Iron	mg/L	Composite	1/Year	d
Manganese	µg/L	Composite	1/Year	d
Nitrate + Nitrite-N	mg/L	Composite	1/Discharge Event	d
Nitrate-N	mg/L	Composite	1/Discharge Event	d
Nitrite-N	mg/L	Composite	1/Discharge Event	d
Perchlorate	µg/L	Composite	1/Discharge Event	d
Settleable Solids	mL/L	Composite	1/Discharge Event	d
Sulfate	mg/L	Composite	1/Discharge Event	d
Temperature	°F	Grab	1/Discharge Event	d
Total Dissolved Solids	mg/L	Composite	1/Discharge Event	d
Vanadium	µg/L	Composite	1/Year	d

Parameters	Units	Sample Type (Note a)	Sampling Frequency (Note b)	Notes
Radioactivity – Gross Alpha	pCi/L	Composite	1/Discharge Event	f and g
Radioactivity – Gross Beta	pCi/L	Composite	1/Discharge Event	f and g
Combined Radium 226 & Radium 228	pCi/L	Composite	1/Discharge Event	f and g
Tritium (H-3)	pCi/L	Composite	1/Discharge Event	f and g
Strontium-90	pCi/L	Composite	1/Discharge Event	f and g
K-40 (Potassium-40)	pCi/L	Composite	1/Discharge Event	f and g
CS-137	pCi/L	Composite	1/Discharge Event	f and g
Uranium	pCi/L	Composite	1/Discharge Event	f and g
Chlorpyrifos	µg/L	Composite	1/Year	d
Diazinon	µg/L	Composite	1/Year	d
Antimony, TR	µg/L	Composite	1/Year	d and h
Arsenic, TR	µg/L	Composite	1//Discharge Event	d and h
Beryllium, TR	µg/L	Composite	1/Year	d and h
Cadmium, TR	µg/L	Composite	1/Discharge Event	d and h
Chromium (VI), TR	µg/L	Composite	1/Year	d, h, and i
Copper, TR	µg/L	Composite	1/Discharge Event	d and h
Lead, TR	µg/L	Composite	1/Discharge Event	d and h
Mercury, TR	µg/L	Composite	1/Discharge Event	d and h
Nickel, TR	µg/L	Composite	1/Year	d and h
Selenium, TR	µg/L	Composite	1/Discharge Event	d and h
Silver, TR	µg/L	Composite	1/Year	d and h
Thallium, TR	µg/L	Composite	1/Year	d and h
Zinc, TR	µg/L	Composite	1/Discharge Event	d and h
Cyanide	µg/L	Composite	1/Discharge Event	d
TCDD Equivalents	µg/L	Composite	1/Discharge Event	d and j
Pentachlorophenol	µg/L	Composite	1/Discharge Event	d
Benzidine	µg/L	Composite	1/Discharge Event	d
Bis(2-ethylhexyl) Phthalate	µg/L	Composite	1/Discharge Event	d
3,3'-Dichlorobenzidine	µg/L	Composite	1/Discharge Event	d
4,4'-DDE	µg/L	Composite	1/Discharge Event	d
Asbestos	Million Fibers/L	Grab or Composite as appropriate	1/Year	d and k
Remaining Priority Pollutants	µg/L	Grab or Composite as appropriate	1/Year	d and l

Footnotes for Table E-4

a. Sample type is defined as either grab or composite and sampled as:

- 1) A grab sample within the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the corresponding quarterly report; or
 - 2) Composite samples shall be collected as a flow-weighted composite sample over the 24-hour period or the duration of the storm event, whichever is shorter.
- b. A discharge event is any discharge from a Discharge Point that occurs after a qualifying storm event. A qualifying storm event is when precipitation occurs of 0.1 inch of rainfall or greater in a 24-hour period preceded by at least 72 hours of dry weather. No more than one sample per week need be obtained during extended periods of rainfall. Sampling shall be during the first hour of discharge or at the first safe opportunity. The reason for delay shall be included in the report. If the rain event is not sufficient to produce flow from the area, the observation must be documented with date, time condition and rainfall amount.
 - c. Flow shall be recorded daily during each period of discharge. Periods of no flow shall also be reported.
 - d. Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136. Where no methods are specified for a given pollutant, those methods must be approved by the Los Angeles Water Board or the State Water Board. For any pollutant whose effluent limitation is lower than all the MLs specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.
 - e. Refer to section E-5, Whole Effluent Toxicity Testing Requirements.
 - f. These radiochemicals shall be analyzed by the following USEPA testing methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 908.0 for uranium, method 901.0 or 901.1 for Cesium, and method 905.0 for strontium-90.
 - g. The radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, chapter 15, article 5, sections 64442 and 64443, of the California Code of Regulations (CCR), or subsequent revisions. Gross alpha and gross beta analysis must be performed. If gross alpha is greater than 15 pCi/L, radon analysis must be performed.
 - h. Samples analyzed must be unfiltered samples.
 - i. The Discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation it will be considered a violation unless an analysis has been made for hexavalent chromium in a replicate sample and the result is reported within the hexavalent chromium limits.
 - j. TCDD equivalents shall be calculated using the following formula, where the ML, TEFs, and BEFs are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD equivalents) = $\sum(C_x \times \text{TEF}_x)$
where: C_x = concentration of dioxin or furan congener x
 TEF_x = TEF for congener x
 BEF_x = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

k. Monitoring for asbestos shall be conducted at each Discharge Point location.

l. Priority Pollutants as defined in 40 CFR Part 131.

End of Footnotes for Table E-4

5. CHRONIC WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

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

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

5.2. 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 the required toxicity test. Sufficient sample volume shall also be collected for subsequent TIE studies, if necessary, at each sampling event. 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.

5.3. Chronic Freshwater Species and Test Methods

If effluent samples are collected from Discharge Points discharging to receiving waters with salinity <1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples at the in-stream waste concentration for the discharge in accordance

with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002; Table IA, 40 CFR part 136). In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

- A static renewal toxicity test with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0).
- A static renewal toxicity test with the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.01).
- A static toxicity test with the green alga, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata*) (Growth Test Method 1003.0).

5.4. Species Sensitivity Screening

Species sensitivity screening shall be conducted during this permit's first required sample collection or when the Facility discharges. The Discharger shall collect a single effluent sample and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This 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 suite of tests. If a different species is the most sensitive, or if there is ambiguity, then the Discharger shall proceed with suites of screening tests using enough collected effluent for a minimum of three, but not to exceed five suites.

5.5. Quality Assurance and Additional Requirements

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

- 5.5.1. 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 and Appendix B, Table B-1, and the procedures described in the State Policy for Water Quality Control: Toxicity Provisions. Attainment of the water quality objective is demonstrated by conducting chronic aquatic toxicity testing as described in Section III.B.2 of the Toxicity Provisions and rejecting the null hypothesis in accordance with the TST statistical approach described in Section III.B.3. of the Toxicity Provisions. The null hypothesis (H_0) for the TST approach is: Mean discharge IWC response $\leq 0.75 \times$ 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: $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$. This is a t-test (formally Student’s t-Test), a statistical analysis comparing two sets of replicate observations – in the case of WET, only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

- 5.5.2. If the effluent toxicity test does not meet all test acceptability criteria (TAC) and all required test conditions specified in the referenced test method *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013) (See Table E-5 for TAC below), then the Permittee must re-sample and re-test at the subsequent discharge event, or as soon as possible. Deviations from recommended test conditions, specified in the referenced test method *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013), must be evaluated on a case-by-case to determine the validity of test results. The Discharger shall consider the degree of the deviation and the potential or observed impact of the deviation on the test results in consultation with Los Angeles Water Board staff before rejecting or accepting a test result as valid, and shall report the results of the validity determination with supporting evidence for that decision in their monthly report.

Table E-5. USEPA Test Methods and Test Acceptability Criteria

Species & USEPA Test Method Number	Test Acceptability Criteria (TAC)
Fathead Minnow, <i>Pimephales promelas</i> , Larval Survival and Growth Test Method 1000.0 (Table 1 of the test method, above)	80% or greater survival in controls; average dry weight per surviving organism in control chambers equals or exceeds 0.25 mg. (required)
Daphnid, <i>Ceriodaphnia dubia</i> , Survival and Reproduction Test Method 1002.0. (Table 3 of the test method, above)	80% or greater survival of all control organisms and an average of 15 or more young per surviving female in the control solutions. 60% of surviving control females must produce three broods. (required)
Green Alga, <i>Selenastrum capricornutum</i> , Growth Toxicity Test Method 1003.0. (Table 3 of the test method, above)	Mean cell density of at least 1×10^6 cells/mL in the controls; and variability (CV%) among control replicates less than or equal to 20%. (required)

- 5.5.3. 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.

- 5.5.4. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.). Monthly reference toxicant testing is sufficient.
- 5.5.5. All reference toxicant test results should be reviewed and reported according to EPA guidance on the evaluation of concentration-response relationships found in *Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing* (40 CFR Part 136) (U.S. EPA 821-B-00-004, 2000).
- 5.5.6. 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).

5.6. Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan to the Executive Officer of the Los Angeles Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use U.S. EPA manual EPA/833B-99/002 (municipal) as guidance, or most current version, or U.S. EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989), or the most current version, as guidance. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum the work plan shall include:

- 5.6.1. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
- 5.6.2. A description of the Facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility.
- 5.6.3. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

5.7. Toxicity Reduction Evaluation (TRE) Process

A TRE is required when toxicity is persistent: if the Permittee has any combination of two or more MDEL violations within a single calendar month or within two successive calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, intermittent recurring toxicity), then Executive Officer of the Los Angeles Water Board may require a TRE. The discharger shall conduct a TRE in accordance with a TRE Work Plan as approved by Los Angeles Water Board. Routine monitoring shall continue during a TRE and TST results ("Pass" or "Fail", "Percent Effect") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL. If the most sensitive species is *Ceriodaphnia dubia*, during the TRE

process, the major ions (Na⁺, K⁺, Ca²⁺, Mg²⁺, Cl⁻, SO₄²⁻, and HCO₃⁻/CO₃²⁻), shall be analyzed for in effluent IWC, dilution water, and culture water used for toxicity testing. Those results shall be reported in the corresponding monitoring report.

- 5.7.1. **Preparation and Implementation of Detailed TRE Work Plan.** The Permittee shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) or U.S. EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, April 1989) and, within 30 days, submit to the Executive Officer a Detailed TRE Work Plan, which shall follow the TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:
- a. Further actions by the Permittee to investigate, identify, and correct the causes of toxicity.
 - b. Actions the Permittee will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.
 - c. A schedule for these actions, progress reports, and the final report.
- 5.7.2 **TIE Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, U.S. EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.
- 5.7.3. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and stormwater 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.
- 5.7.4. The Discharger shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE is taking place.
- 5.7.5. The Los Angeles 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.

5.7.6 The Board may consider the results of any TIE/TRE studies in an enforcement action.

5.8. 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 called Report Preparation, including:

- a. The toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent (%) Effect” at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-8
- b. A summary of water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
- c. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1.
- d. TRE/TIE results. The Los Angeles Water Board Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to the completion of the final TIE/TRE report, the Discharger shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.
- e. Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.
- f. Tabular data and graphical plots clearly showing the laboratory’s performance for the reference toxicant, for each solution, for the previous 20 tests and the laboratory’s performance for the control mean, control standard deviation, and control coefficient of variation, for each solution, for the previous 12-month period.
- g. Any additional QA/QC documentation or any additional chronic toxicity related information, upon request by Los Angeles Water Board staff.

6. LAND DISCHARGE MONITORING REQUIREMENTS – Not Applicable

7. RECYCLING MONITORING REQUIREMENTS – Not Applicable

8. RECEIVING WATER MONITORING REQUIREMENTS

8.1. Receiving Water Monitoring Locations RSW-001, RSW-002, and RSW-003

Receiving water sampling shall be conducted at the same time as the effluent monitoring when there is discharge to surface water. The Discharger shall monitor the receiving water at Monitoring Location RSW-001 for Bell Creek. For the Arroyo Simi,

the Discharger shall monitor the downstream location at RSW-002 and an upstream location at RSW-003. The receiving water monitoring requirements shall be as follows:

Table E-6. Receiving Water Monitoring Requirements

RSW-001 Parameters	Units	Sample Type	Minimum Sampling Frequency	Notes
Water Velocity	Ft/second	Recorder	1/Quarter	a
pH	standard units	Grab	1/Quarter	a and b
Hardness (as mg/L CaCO ₃)	mg/L	Grab	1/Quarter	a and b
TSS	mg/L	Grab	1/Year	a
<i>E. coli</i>	(MPN or CFU per 100 mL)	Grab	1/Year	a and c
Temperature	°F	Grab	1/Quarter	a
TCDD – Equivalent	µg/L	Grab	1/Year	a and d
PCBs	µg/L	Grab	1/Quarter	a
Priority Pollutants	µg/L	Grab	1/Year	a and b

RSW-002 Parameters	Units	Sample Type	Minimum Sampling Frequency	Notes
Water Velocity	Ft/second	Recorder	1/Quarter	a
pH	standard units	Grab	1/Quarter	a and b
Hardness (as mg/L CaCO ₃)	mg/L	Grab	1/Quarter	a and b
TSS	mg/L	Grab	1/Year	a
<i>E. coli</i>	(MPN or CFU per 100 mL)	Grab	1/Year	a and c
Temperature	°F	Grab	1/Quarter	a and e
TCDD – Equivalent	µg/L	Grab	1/Year	a and e
Chlorpyrifos	µg/L	Grab	1/Quarter	a and e
Diazinon	µg/L	Grab	1/Quarter	a and e
Chlordane	µg/L	Grab	1/Quarter	a and e
4,4'-DDD	µg/L	Grab	1/Quarter	a and e
4,4'-DDE	µg/L	Grab	1/Quarter	a and e
4,4'-DDT	µg/L	Grab	1/Quarter	a and e
Dieldrin	µg/L	Grab	1/Quarter	a and e
PCBs	µg/L	Grab	1/Quarter	a and e
Toxaphene	µg/L	Grab	1/Quarter	a and e
Priority Pollutants	µg/L	Grab	1/Year	a and b

RSW-003 Parameters	Units	Sample Type	Minimum Sampling Frequency	Notes
Water Velocity	Ft/second	Recorder	1/Quarter	a
pH	standard units	Grab	1/Quarter	a and b
Hardness (as mg/L CaCO ₃)	mg/L	Grab	1/Quarter	a and b

RSW-003 Parameters	Units	Sample Type	Minimum Sampling Frequency	Notes
TSS	mg/L	Grab	1/Year	a
<i>E. coli</i>	(MPN or CFU per 100 mL)	Grab	1/Year	a and c
Temperature	°F	Grab	1/Quarter	a and e
TCDD – Equivalents	µg/L	Grab	1/Year	a and e
Priority Pollutants	µg/L	Grab	1/Year	a and b

Footnotes for Table E-6

- Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136. Where no methods are specified for a given pollutant, those methods must be approved by the Los Angeles Water Board or the State Water Board. For any pollutant whose effluent limitation is lower than all the MLs specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.
- Receiving water samples for pH, hardness, and priority pollutants must be collected on the same day as the sampling event for the effluent sample.
- If any of the single sample maximum or statistical threshold value limits for *E. coli* are exceeded, the Los Angeles Water Board requires repeat sampling on a daily basis until the sample falls below the single sample limit in order to determine the persistence of the exceedance. However, for RSW-002, if no discharges from the site are observed then no additional daily sampling is required.

When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period shall be used to calculate the geometric mean.

- TCDD equivalents shall be calculated using the following formula, where the ML, TEFs, and BEFs are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

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

where:
 C_x = concentration of dioxin or furan congener x
 TEF_x = TEF for congener x
 BEF_x = BEF for congener x

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

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

- e. Samples are collected at RSW-002 quarterly as required by the Calleguas Creek OC Pesticides and PCBs TMDL. The final concentration is the average of the samples collected over one year. Compliance is determined by comparing the final concentration limits listed in Section 5 of this Order.

End of Footnotes for Table E-6

8.2. Receiving Water Surveys

The receiving water monitoring program shall include periodic surveys of Bell Creek, Dayton Canyon Creek and the Arroyo Simi and shall include studies of those physical-chemical characteristics of the receiving water that may be impacted by the discharge.

Receiving Water Observations. General observations of the receiving water shall be made at each discharge point on a monthly basis (only during discharge from any of the respective Discharge Points) and shall be reported in the quarterly monitoring report.

Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials that are apparent are enumerated. The following observations shall be made:

- Weather conditions
- Color of water
- Appearance of oil films or grease, or floatable materials
- Extent of visible turbidity or color patches
- Description of odor, if any, or the receiving water
- Presence and/or activity of California Least Tern or California Brown Pelican.

8.3. Upstream Monitoring at RSW-003

This MRP (No. 6027) institutes a new upstream monitoring requirement at location RSW-003 in the Arroyo Simi (Latitude 34.268528, Longitude -118.708972) to assess the background concentration of pollutants upstream of discharges associated from the Facility for the Arroyo Simi. According to the SIP, the Discharger is required to monitor the upstream receiving water for the CTR priority pollutants to determine reasonable potential.

9. OTHER MONITORING REQUIREMENTS

9.1. Sediment Sampling

The Calleguas Creek OC Pesticides and PCBs TMDL includes requirements for the concentrations of several pesticides and PCBs in sediment. Therefore, this Order includes requirements to monitor sediment for these constituents. The Discharger may choose to join the Calleguas Creek Watershed TMDL Monitoring Program (CCWTMP) and collect the required sediment samples along with a host of other stakeholders in the watershed. This facility is located in Arroyo Simi and the Compliance Sampling Site locations identified in the TMDL documentation are Arroyo Simi East of Hitch Boulevard (07_HITCH) or Simi Valley Water Quality Control Plant (07D_SIMI). As an alternative, the Discharger may choose to collect the sediment samples at the base of the subwatershed where the discharge occurs, adjacent to Frontier Park. This is the option that the Discharger used during the term of Order R4-2015-0033. The exact location of the sampling point chosen for this Order must be identified in the initial self-monitoring report.

The in-stream sediment sampling shall be conducted according to methods developed by the United States Geological Survey outlined in *Guidelines for Collecting and Processing Samples of Stream Bed Sediment for Analysis of Trace Elements and Organic Contaminants for the National Water Quality Assessment Program* (1994). A brief description of the protocol also appears in the Draft Calleguas Creek Watershed Management Plan Quality Assurance Project Plan (QAPP) Monitoring and Reporting Program Plan for Nitrogen, OC and PCBs, and Toxicity Total Maximum Daily Loads dated September 26, 2006, beginning on page 38. Discussions include field measurements and observations, sample handling and custody, sample handling and shipping, and analytical methods.

Table E-7. Receiving Water Sediment Monitoring Requirements

Parameters	Units	Sample Type	Minimum Sampling Frequency
Sediment toxicity (chronic 10-day eohaustorius estuarius toxicity)	NA	Grab	1/Year
48-hour Bivalve Embryo toxicity (Mytilus edulis or Crassostrea gigas)	NA	Grab	1/Year
Total ammonia	Mg/wet kg	Grab	1/Year
% Moisture	%	Grab	1/Year
Particle Size Distribution	Um	Grab	1/Year
Total Organic Carbon	% dry weight	Grab	1/Year
Water velocity	ft/sec	Grab	1/Year

Parameters	Units	Sample Type	Minimum Sampling Frequency
pH	pH units	Grab	1/Year
Temperature	°F	Grab	1/Year
Dissolved Oxygen	mg/L	Grab	1/Year
Conductivity	µmhos/cm	Grab	1/Year
Chlordane	µg/g	Grab	1/Year
4,4'-DDD	µg/g	Grab	1/Year
4,4'-DDE	µg/g	Grab	1/Year
4,4'-DDT	µg/g	Grab	1/Year
Dieldrin	µg/g	Grab	1/Year
PCBs	µg/g	Grab	1/Year
Toxaphene	µg/g	Grab	1/Year

9.2. Rainfall Monitoring

The Discharger shall measure and record the rainfall on each day of the month or submit data obtained from the nearest city/county operated rain gauge monitoring station. The location of the rain gauge utilized and the distance from the Facility and any other information shall be included in the monitoring report for that month.

9.3. SWPPP, BMP, and Spill Contingency Plan Status and Effectiveness Report

- 9.3.1. As required under Special Provisions 6.3.3. of this Order, the Discharger shall submit an updated SWPPP, BMPP, and Spill Contingency Plan to the Executive Officer of the Los Angeles Water Board for approval within 90 days of the effective date of this Order.
- 9.3.2. Annually, the Discharger shall report the status of the implementation and the effectiveness of the SWPPP, BMPP, and Spill Contingency Plan required under Special Provision 6.3.3. of this Order. The SWPPP, BMPP, 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 stormwater discharged from the facility are addressed. All changes or revisions to the SWPPP, BMPP, and Spill Contingency Plan status will be summarized in the first quarterly report of the year required under Attachment E of this Order, Monitoring and Reporting, Section 10.2.3.

10. REPORTING REQUIREMENTS

10.1. General Monitoring and Reporting Requirements

- 10.1.1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
- 10.1.2. If there is no discharge during any reporting period, the Discharger shall indicate under penalty of perjury in the corresponding monitoring report that no effluent was discharged to surface water during the reporting period.

- 10.1.3. If the Discharger monitors (other than for process/operational control, startup, research, or equipment testing) any influent, effluent, or receiving water constituent more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the monitoring report. These results shall be reflected in the calculation of the average (or median) used in demonstrating compliance with this Order.
- 10.1.4. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.
- 10.1.5. The Discharger shall inform the Los Angeles Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.
- 10.1.6. The Discharger shall report the results of chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section 5.8.

10.2. Self-Monitoring Reports (SMRs)

- 10.2.1. 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 report submittals in the event there will be a planned service interruption for electronic submittal.
- 10.2.2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 9. The Discharger shall submit quarterly SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
- 10.2.3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-8. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1/Discharge Event	Permit effective date	Any precipitation-related discharge	May 15 August 15 November 15 February 15
1/Month	Permit effective date	First day of calendar month to last day of calendar month	May 15 August 15 November 15 February 15
1/Quarter	Permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 15 August 15 November 15 February 15
1/Year	Permit effective date	January 1 through December 31	Submit with quarterly SMR due February 15

10.2.4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR 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:

- Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. 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 (\pm a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
- Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
- Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

10.2.5. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above,

section 7 of this Order. For purposes of reporting and administrative enforcement by the Los Angeles Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

- 10.2.6. **Multiple Sample Data.** When determining compliance with an MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
- a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
 - b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
- 10.2.7. **SMRs.** The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
 - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

10.3. Discharge Monitoring Reports (DMRs)

DMRs are U.S. EPA reporting requirements. 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

10.4. Other Reports

10.4.1. Within 90 days of the effective date of this permit, the Discharger is required to submit the following to the Los Angeles Water Board:

- a. Initial Investigation TRE Workplan
- b. Updated Stormwater Pollution Prevention Plan (SWPPP)
- c. Updated Best Management Practices Plan (BMPP)
- d. Updated Spill Contingency Plan (SCP)

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

10.4.2. Within 12 months from the effective date of this Order, the Discharger is required to submit a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change related-effects associated with the Facility operation, water supplies, stormwater collection, conveyance and treatment systems, water quality and beneficial uses.

ATTACHMENT F – FACT SHEET

TABLE OF CONTENTS

1. PERMIT INFORMATION	3
2. FACILITY DESCRIPTION	4
2.1. Description of Discharge	5
2.2. Discharge Points and Receiving Waters	6
2.3. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data.....	7
2.4. Compliance Summary	11
2.5. Planned Changes	14
3. APPLICABLE PLANS, POLICIES, AND REGULATIONS	14
3.1. Legal Authorities.....	14
3.2. California Environmental Quality Act (CEQA)	14
3.3. State and Federal Laws, Regulations, Policies, and Plans	14
3.4. Watershed Management Approach.....	20
3.5. Impaired Water Bodies on the CWA section 303(d) List	21
3.6. Title 22 of the California Code of Regulations	23
3.7. Other Plans, Policies and Regulations	24
4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS	26
4.1. Discharge Prohibitions	29
4.2. Technology-Based Effluent Limitations (TBELs)	29
4.3. Water Quality-Based Effluent Limitations (WQBELs)	31
4.4. Final Effluent Limitation Considerations	52
4.5. Interim Effluent Limitations – Not Applicable	71
4.6. Land Discharge Specifications – Not Applicable	71
4.7. Recycling Specifications – Not Applicable.....	71
5. RATIONALE FOR RECEIVING WATER LIMITATIONS	71
5.1. Surface Water	71
5.2. Groundwater – Not Applicable	72
6. RATIONALE FOR PROVISIONS	72
6.1. Standard Provisions	72
6.2. Special Provisions	72
7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS	74
7.1. Influent Monitoring.....	74
7.2. Effluent Monitoring	74
7.3. Stormwater Monitoring	75
7.4. Whole Effluent Toxicity (WET) Testing Requirements	75
7.5. Receiving Water Monitoring	75
7.6. Other Monitoring Requirements	76
8. PUBLIC PARTICIPATION	76
8.1. Notification of Interested Parties.....	76
8.2. Written Comments.....	77
8.3. Public Hearing	77
8.4. Reconsideration of Waste Discharge Requirements	77
8.5. Information and Copying	78
8.6. Register of Interested Persons	78

8.7. Additional Information.....	78
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TABLE OF TABLES

Table F-1. Facility Information	F-3
Table F-2. Historic Effluent Limitations and Monitoring Data from Outfalls 001, 002, 011, and 018.	F-8
Table F-3. Historic Effluent Limitations and Monitoring Data from Outfalls 003, 004, 005, 006, 007, 009, and 010	F-9
Table F-4. Historic Effluent Limitations and Monitoring Data from Outfall 008.....	F-10
Table F-5. Effluent Limitation Violations	F-11
Table F-6. Basin Plan Beneficial Uses Los Angeles River, Bell Creek, and Dayton Canyon Creek	F-15
Table F-7. Basin Plan Beneficial Uses Arroyo Simi	F-16
Table F-8. Summary of Technology-Based Effluent Limitations at Outfalls 001, 002, 011, and 018	F-31
Table F-9. Summary of Technology-Based Effluent Limitations at Outfalls 003, 004, 005, 006, 007, 008, 009, and 010	F-31
Table F-10. Applicable Water Quality Criteria/Objectives	F-35
Table F-11. Toxicity Equivalency Factors and Bioaccumulation Equivalency Factors.....	F-37
Table F-12. Summary of Reasonable Potential Analysis (Discharge Points 001, 002, 011, and 018)	F-39
Table F-13. Summary of Reasonable Potential Analysis (Discharge Points 003, 004, 005, 006, 007, 009, and 010)	F-41
Table F-14. Summary of Reasonable Potential Analysis (Discharge Point 008)	F-43
Table F-15. Summary of Final WQBELs at Outfalls 001, 002, 011, and 018.....	F-49
Table F-16. Summary of Final WQBELs Effluent Limitations at Outfalls 003, 004, 005, 006, 007, 009, 010.....	F-50
Table F-17. Summary of Final WQBELs Effluent Limitations at Outfalls 008	F-51
Table F-18. Summary of Final Limitations for Discharge Points 001, 002, 011, and 018	F-63
Table F-19. Summary of Final Effluent Limitations at Discharge Points 003, 004, 005, 006, 007, 009, 010.....	F-67
Table F-20. Summary of Final Effluent Limitations at Discharge Point 008.....	F-69

ATTACHMENT F – FACT SHEET

As described in section 2.2 of this Order, the Los Angeles Water Board incorporates this Fact Sheet as findings of the Los Angeles Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

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

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility:

Table F-1. Facility Information

WDID	4A562013002
Discharger	The Boeing Company
Name of Facility	Santa Susana Field Laboratory
Facility Address	5800 Woolsey Canyon Road, Canoga Park, CA 91304-1148 (Ventura County)
Facility Contact, Title and Phone	Jeffrey Wokurka, Global Remediation (818) 466-8800
Authorized Person to Sign and Submit Reports	Thiess Lindsay, Director Environment (206) 466-8822
Mailing Address	5800 Woolsey Canyon Road Canoga Park, CA 91304-1148
Billing Address	Same as above
Type of Facility	Former Energy, Research, Development and Rocket Engine Testing
Major or Minor Facility	Major
Threat to Water Quality	2
Complexity	B
Pretreatment Program	Not Applicable
Recycling Requirements	Not Applicable
Facility Permitted Flow	187 million gallons per day
Facility Design Flow	Not Applicable
Watershed	Los Angeles River Watershed, Calleguas Creek Watershed
Receiving Water	Bell Creek, Arroyo Simi, Dayton Canyon Creek
Receiving Water Type	Inland Surface Water

- 1.1. The Boeing Company (hereinafter Boeing or Discharger), an industrial discharger, is an owner and operator of a portion of the Santa Susana Field Laboratory (hereinafter SSFL or Facility). The federal government also owns a portion of the SSFL site; the National Aeronautics and Space Administration (“NASA”) controls and administers the property owned by the federal government. The U.S. Department of Energy (DOE) and its predecessor previously leased a 90-acre portion of Boeing-owned land. Boeing is a Discharger because Boeing conducted its own industrial activity at SSFL. DOE and NASA are also contributors for the discharges because they conducted industrial activity at or are current/former owners or operators at SSFL. Boeing currently holds the NPDES permit for the discharge of all stormwaters from the Facility and previously served as a government contractor on behalf of DOE and NASA at SSFL. Boeing has agreements with NASA and DOE that establish access rights associated with the other entity’s property and that contain provisions related to stormwater permitting and management. 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.
- 1.2. The Facility discharges stormwater runoff to Bell Creek, Arroyo Simi, and Dayton Canyon Creek, waters of the United States, tributaries to the Los Angeles River and Calleguas Creek, within the Los Angeles River and Calleguas Creek watersheds. The Discharger was previously regulated by Order No. R4-2015-0033 and NPDES Permit No. CA0001309 adopted by this Los Angeles Water Board on April 1, 2015, which expired on March 31, 2020.

Federal regulations at 40 CFR 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 40 CFR section 122.6(d)(1) and 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. The Discharger filed a report of waste discharge and submitted an application for issuance of its waste discharge requirements (WDRs) and NPDES permit dated September 26, 2019, which was received by the Los Angeles Water Board on September 30, 2019. The application was deemed complete on October 29, 2019. Site visits were conducted on August 20, 2020, and June 14, 2021 to observe operations and collect additional data to develop permit limitations and requirements for waste discharge. Therefore, the terms and conditions of the current Order have been administratively extended and remain in effect until new Waste Discharge Requirements and an NPDES permit are adopted pursuant to this Order. Attachment B 1-2 provide maps of the area around the Facility and the site map with Discharge Point locations. Attachment C-1-4 provide flow schematics [engineered stormwater treatment systems at](#) of the Facility.

2. FACILITY DESCRIPTION

SSFL occupies approximately 2,850 acres and is located at the top of Woolsey Canyon Road in the Simi Hills, Ventura County, California. The Facility is jointly owned by Boeing and the federal government. As noted above, NASA administers the portion of the property

owned by the federal government. The site is divided into four administrative areas (Areas I, II, III, and IV) and undeveloped land areas to both the north and south. The NASA property includes a portion of Area I and all of Area II. DOE also owned several buildings that were constructed on land owned by Boeing in the northwest portion in Area IV. DOE leased this portion of the land (about 90 acres as noted above) from Boeing during the time it built the buildings on Boeing's land at SSFL. All above ground portion of the DOE buildings have been demolished.

The developed portion of the site comprises approximately 1,500 acres. Boeing and its predecessors' operations at SSFL included research, development, assembly, disassembly, and testing of rocket engines, and chemical lasers. During the 1950s to the mid-1970s, volatile organic compounds were utilized for the cleaning of hardware and rocket engine thrust chambers, and for the cleaning of other equipment. These solvents migrated into the subsurface, contaminating groundwater primarily with trichloroethylene (TCE) and 1,2-dichloroethylene (1,2-DCE).

NASA operations included rocket engine assembly and testing, propellant and fuel storage and loading. Rocket engine testing began at SSFL in the 1950s. An engine test consisted of a cycle of one to three engine runs lasting one to three minutes each. A test cycle may take one to two weeks to complete. Each engine run resulted in the use of 50,000 to 200,000 gallons of deluge/cooling water that contacted fuels such as liquid oxygen (LOX) or kerosene and associated combustion products. The frequency of testing historically varied depending on production requirements. In July 2004, the frequency of testing was one test cycle every one or two months. In late 2006, the rocket engine and component testing operations at the Facility were terminated. These tests generated fuel related pollutants and heavy metals. Two of the test stand complexes and the associated spillways remain onsite. The COCA test stand is currently undergoing demolition.

DOE's past operations included research and development of energy related programs, and seismic testing experiments. The activities included developing, testing and operating nuclear reactors and fabricating and disassembling nuclear fuel. DOE began to phase out the program in the 1960s. The last reactor was shut down in 1980, and nuclear research was terminated in 1989. The research and the associated activities resulted in residual soil and groundwater contamination.

Until October 2014, Boeing was DOE's remediation contractor for remedial work done at the site, and Boeing was NASA's remediation contractor from approximately the mid-1980s until March 2015. Currently, both NASA and DOE have different remediation contractors, but they have agreements with Boeing that provide access rights associated with the other entity's property in order to conduct remediation activities. These agreements indicate that NASA and DOE will comply with the terms of this NPDES permit; however, Boeing is the only holder of the NPDES permit at this time.

2.1. Description of Discharge

The discharge from SSFL regulated by this Order is composed of stormwater runoff that traverses the site. The stormwater runoff picks up pollutants present on site as a result of past industrial activities. Treated groundwater was previously regulated under Order R4-2015-0033; however, discharges of treated groundwater to surface water ceased in

2012 and treated groundwater has been reinjected into the ground under the requirements of Order No. R4-2014-0187, which became effective on October 2, 2017. Thus, treated groundwater is no longer regulated by this Order. Sanitary wastewater generated from onsite activities is containerized and transported offsite for treatment and disposal and is not regulated by this Order.

2.2. Discharge Points and Receiving Waters

SSFL has the potential (based on a 24-hour duration, 10-year return storm event) to discharge approximately 187 million gallons per day (MGD) of stormwater runoff that may contain pollutants from the Facility. Approximately 60% of the discharge exits the property via two southerly discharge points (Discharge Points 001 and 002) to Bell Creek, a tributary to the Los Angeles River, a water of the United States, with its confluence located near the intersection of Bassett Street and Owensmouth Avenue in Canoga Park. Upstream outfalls that contribute to the discharge at Discharge Points 001 and 002 include Discharge Points 011 and 018. This Order removes the “benchmark” designation to Discharge Points 001 and 002, which is discussed in further detail in Section 4 below. The stormwater runoff from Happy Valley (Discharge Point 008) flows via Dayton Canyon Creek to Chatsworth Creek. Chatsworth Creek flows south to Bell Creek southwest of the intersection of Shoup Avenue and Sherman Way. Bell Creek subsequently flows southeast to the Los Angeles River.

Discharge Points 015, 016, and 017 were associated with the locations of the three-package type sewage treatment plants, which are no longer used. Wastewater generated on site is collected in the collection basins of the plants and periodically trucked off-site for disposal at one of Los Angeles County Sanitation District’s Public Owned Treatment Works (POTW) facilities.

Discharge Points 012, 013, and 014 were associated with the locations of the rocket engine test stands. Rocket engine testing at these locations stopped in 2006. The current practice is to collect stormwater from Discharge Points 012 at the Alfa test stand and transport the collected stormwater from Discharge Points 012 to the Silvernale Pond for treatment, in the Stormwater Treatment System (SWTS), monitoring and ~~prior to being discharged~~ via Discharge Point 018, which has numeric effluent limits. The Bravo test stand complex (Discharge Point 013) has been removed. Stormwater runoff flows naturally to Silvernale Pond for treatment, monitoring and discharge via Discharge Point 018. Discharge Point 014 was the former location of the Advanced Propulsion Test Facility (APTF). The APTF has been removed and the area is currently green space. There is a small berm surrounding the area that keeps stormwater runoff in the former footprint of the APTF site. Routinely, the stormwater is allowed to evaporate or infiltrate in the area. In instances where the rainfall exceeds the storage capacity; stormwater runoff naturally flows to R-1 Pond for treatment, monitoring, and discharge via Discharge Point 011. Discharge Points 012, 013, and 014 have been removed from the permit and no additional monitoring is required at these locations.

The stormwater from the northern boundary of the site is discharged via Discharge Points 003 through 007 and 010 or it is transferred to Silvernale Pond for treatment prior to discharge at Discharge Point 018. Discharge Point 004, which targets stormwater runoff from the Sodium Reactor Experiment (SRE) area, was modified in March of 2015

to include the flow exiting the concrete channel that collects water from the support area of the SRE within the same watershed. Stormwater from Discharge Points 003 through 007 and 010 that is not pumped to Silvernale Pond is discharged to the Arroyo Simi. Because of the size and terrain of the watershed and the amount of stormwater runoff routinely generated, Discharge Point 009 always discharges to Arroyo Simi. The Discharger began Interim Measures, in May 2023, at the former shooting range for lead soil remediation near the main visitor entrance and upper parking lot. The former shooting range drains into Discharge Point 009. These activities are covered under the *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit (CGP)), Order 2009-0009-DWQ as amended by Order 2010-0014-DWQ and 2012-0006-DWQ, and the Discharger enrolled into the CGP for these activities, WDID 456C398632.

An Order issued by the Los Angeles Water Board pursuant to Water Code § 13383 on May 19, 2008 required the monitoring and analysis of stormwater runoff downstream of Discharge Point 007 from the Building 056 Landfill. On June 3, 2019, the Los Angeles Water Board received a letter from the Discharger that provided an update on the status of a five-storm event sampling study based on requirements from the Order. Monitoring of stormwater runoff was analyzed for priority pollutants, as indicated in Table E-4 of the MRP, to determine if there is reasonable potential. Based on the review of the data, and the history of construction materials and debris in the Building 056 Landfill, the Los Angeles Water Board extended the Order on October 5, 2021 to require additional monitoring and sampling for asbestos downstream of the Building 056 landfill.

Treated Groundwater

All extracted groundwater is pumped to the Area I Groundwater Extraction and Treatment System (GETS). The treatment process at the GETS includes particulate filters, ion exchange vessels, an air stripper, liquid and vapor phase granular activated carbon, an ultraviolet/hydrogen peroxide system, and chemical dosing for pH and hardness adjustment (as needed). The GETS is designed to discharge up to 0.144 million gallons per day (mgd) of treated groundwater. Well purge water and groundwater generated during well installations or pumping tests may be transported to the GETS for treatment.

Currently, treated groundwater is injected and is no longer discharged at Discharge Point 019. Discharge Point 020 was identified to be downgradient from Discharge Point 002; however, it was not constructed. Due to the practice of groundwater injection, Discharge Points 019 and 020 have been removed from the permit and no additional monitoring is required at these locations. In the event of a disruption of the GETS, flows would be captured and monitored at Discharge Points 011 and 001. An upset of the GETS resulting in surface water discharge would be a violation of this Order.

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

Effluent limitations contained in Order R4-2015-0033 for discharges from Discharge Points 001, 002, 011, and 018, and representative monitoring data from the term of Order R4-2015-0033 are as follows in Table F-2:

**Table F-2. Historic Effluent Limitations and Monitoring Data from
Discharge Points 001, 002, 011, and 018.**

Parameters	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration	Notes
Flow	MGD	117.83	17.198	
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	mg/L	30	66	
Oil and Grease	mg/L	15	12	
pH	s.u.	6.5/8.5	6.41/8.45	a
Barium	mg/L	1	0.11 (0.25)	b
Chloride	mg/L	150	38 (44)	b
Chlorine, Total Residual	mg/L	0.1	0.07	
Detergents (as MBAS)	mg/L	0.5	0.35 (0.47)	b
Fluoride	mg/L	1.6	0.27	
Ammonia-N	mg/L	10.1	1.45	
Nitrate-N	mg/L	8.0	3.7 (7.1)	b
Nitrite-N	mg/L	1.0	0.21	
Nitrate + Nitrite (as N)	mg/L	8	3.8 (7.2)	b
Perchlorate	µg/L	6.0	0.95	
Sulfate	mg/L	300	240 (340)	b
Temperature	°F	86	58.19	
Total Dissolved Solids (TDS)	mg/L	950	720 (740)	b
Antimony, TR	µg/L	6.0	0.69 (0.82)	b
Arsenic, TR	µg/L	10	8.9 (17)	b
Beryllium, TR	µg/L	4.0	< 2 (1.8)	b and c
Cadmium, TR	µg/L	4.0/3.1	0.2 (1.6)	b
Chromium VI, TR	µg/L	16	1.1	
Copper, TR	µg/L	14	11 (52)	b
Lead, TR	µg/L	5.2	8.6 (88)	b
Mercury, TR	µg/L	0.10	< 0.2	c
Nickel, TR	µg/L	94	13 (28)	b
Selenium, TR	µg/L	8.2	1 (11)	b
Silver, TR	µg/L	4.1	0.28	
Thallium, TR	µg/L	2.0	< 1	c
Zinc, TR	µg/L	119	59 (430)	b
Cyanide	µg/L	8.5	1.5 (6.1)	b
TCDD Equivalents	µg/L	2.8E-08	2.6E-07	
1,2-Dichloroethane	µg/L	0.5	< 0.5	c
1,1-Dichloroethylene	µg/L	6.0	< 0.5	c
Trichloroethylene	µg/L	5.0	1.6	
Pentachlorophenol	µg/L	1.0	1.3	
2,4,6-Trichlorophenol	µg/L	13	< variable	c

Parameters	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration	Notes
Bis(2-ethylhexyl) phthalate	µg/L	4.0	3.9	c
2,4-Dinitrotoluene	µg/L	18	0.12	
N-Nitrosodimethylamine	µg/L	16	< variable	
Alpha BHC	µg/L	0.03	< variable (0.0041)	b and c
Radioactivity – Gross Alpha	pCi/L	15	14.1 (60.7)	b
Radioactivity – Gross Beta	pCi/L	50	9.34 (40.7)	b
Combined Radium-226 & Radium-228	pCi/L	5.0	3.16	
Tritium	pCi/L	20,000	< 500	c
Strontium-90	pCi/L	8.0	1.25	
Uranium	pCi/L	20	3.22 (3.65)	b

Footnotes for Table F-2

- Instantaneous minimum and maximum effluent limits.
- Monitoring data from April 2015 through March 2023. Results in parentheses include post-fire maximum effluent concentration detections between December 2018 and March 2019 (Woolsey Fire).
- Non-detected result (if not considering Woolsey fire MECs); data reported at less than the laboratory reporting limit (e.g., < RL)

End of Footnotes for Table F-2

Effluent limitations contained in Order R4-2015-0033 for discharges from Discharge Points 003 through 007, 009, and 010 and representative monitoring data from the term of Order R4-2015-0033 are as follows in Table F-3:

Table F-3. Historic Effluent Limitations and Monitoring Data from Discharge Points 003, 004, 005, 006, 007, 009, and 010

Parameters	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration	Notes
Flow	MGD	64.33	21.58	
Oil and Grease	mg/L	15	2.6	
pH	su	6.5/8.5	6.54/8.35 (8.41)	a and b
Chloride	mg/L	150	14	
Fluoride	mg/L	1.6	0.19 (0.25)	b
Ammonia-N	mg/L	10.1	No data	
Nitrate + Nitrite (as N)	mg/L	10	6.3	
Perchlorate	µg/L	6.0	< 4	c
Sulfate	mg/L	250	14 (22)	b
Temperature	°F	86	57.3	
Total Dissolved Solids (TDS)	mg/L	950	170	
Antimony, TR	µg/L	6.0	2.2 (2.3)	b
Cadmium, TR	µg/L	4.0	0.15	
Copper, TR	µg/L	13	15	

Parameters	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration	Notes
Lead, TR	µg/L	5.2	9.5	
Mercury, TR	µg/L	0.13	0.11 DNQ	
Nickel, TR	µg/L	86	8.3 (170)	b
Thallium, TR	µg/L	2.0	0.14	
Zinc, TR	µg/L	120	41	
Cyanide	µg/L	9.5	< 5	c
TCDD Equivalents	µg/L	2.8E-08	2.3E-07	
Radioactivity - Gross Alpha	pCi/L	15	4.9	
Radioactivity – Gross Beta	pCi/L	50	7.74	
Combined Radium-226 & Radium-228	pCi/L	5.0	1.53	
Tritium	pCi/L	20,000	623	
Strontium-90	pCi/L	8.0	0.471 (0.719)	b
Uranium	pCi/L	20	1.85	

Footnotes for Table F-3

- Instantaneous minimum and maximum effluent limits.
- Monitoring data from April 2015 through March 2023. Results in parentheses include post-fire maximum effluent concentration detections between December 2018 and March 2019 (Woolsey Fire).
- Non-detected result (if not considering Woolsey fire MECs); data reported at less than the laboratory reporting limit (e.g., < RL).

End of Footnotes for Table F-3

Table F-4. Historic Effluent Limitations and Monitoring Data from Discharge Point 008

Parameters	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration	Notes
Flow	MGD	7.21	7.21	
Oil and Grease	mg/L	15	3.2	
pH	su	6.5/8.5	6.2/8.42	a
Boron	mg/L	1.0	0.089	
Chloride	mg/L	150	8.8 (12)	b
Fluoride	mg/L	1.6	< 0.5 (0.3)	b and c
Ammonia-N	mg/L	10.1	0.183 (1.37)	b
Nitrate-N	mg/L	8	4.2 (8.6)	b
Nitrite-N	mg/L	1	0.18	
Nitrate + Nitrite – N	mg/L	8	4.4 (8.6)	b
Perchlorate	µg/L	6.0	2.9	
Sulfate	mg/L	300	8.6 (15)	b
Temperature	°F	86	78.8	
Total Dissolved Solids (TDS)	mg/L	950	190 (240)	b
Antimony, TR	µg/L	6.0	2.5	

Parameters	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration	Notes
Cadmium, TR	µg/L	4.0/3.1	0.14 (0.9)	b
Copper, TR	µg/L	14	6.7 (16)	b
Lead, TR	µg/L	5.2	4 (54)	b
Mercury, TR	µg/L	0.13	0.16	
Nickel, TR	µg/L	86	2.1 (18)	b
Thallium, TR	µg/L	2.0	0.14	
Zinc, TR	µg/L	120	60 (120)	b
Cyanide	µg/L	9.5	2.6 (15)	b
TCDD	µg/L	2.8E-08	2.4E-10	
Radioactivity - Gross Alpha	pCi/L	15	5.22 (23.2)	b
Radioactivity – Gross Beta	pCi/L	50	7.54 (18.9)	b
Combined Radium-226 & Radium-228	pCi/L	5.0	1.4	
Tritium	pCi/L	20,000	< 500	c
Strontium-90	pCi/L	8.0	< 3 (0.586)	b and c
Uranium	pCi/L	20	0.414	

Footnotes for Table F-4

- Instantaneous minimum and maximum effluent limits.
- Monitoring data from April 2015 through April 2020. Results in parentheses include post-fire maximum effluent concentration detections between December 2018 and March 2019 (Woolsey Fire).
- Non-detected result (if not considering Woolsey fire MECs); data reported at less than the laboratory reporting limit (e.g., < RL).

End of Footnotes for Table F-4

2.4. Compliance Summary

Monitoring data submitted to the Los Angeles Water Board during the effective term of Order R4-2015-0033 (from April 2015 through March 2023) indicate that the Discharger has violated numeric effluent limitations for discharges as outlined in the table below:

Table F-5. Effluent Limitation Violations

Date	Location	Pollutant	Type of Limitation	Reported Value	Effluent Limitation	Units
01/06/2016	EFF-009	TCDD Equivalents	Daily Maximum	8.7E-08	2.8E-08	µg/L
03/08/2016	EFF-009	Lead	Daily Maximum	5.9	5.2	µg/L
01/20/2017	EFF-008	pH	Instantaneous Minimum	6.2	6.5 - 8.5	SU
01/24/2017	EFF-011	Iron	Daily Maximum	0.77	0.3	mg/L
02/18/2017	EFF-009	Lead	Daily Maximum	9.5	5.2	µg/L
12/07/2018	EFF-008	Copper	Daily Maximum	15	14	µg/L

Date	Location	Pollutant	Type of Limitation	Reported Value	Effluent Limitation	Units
12/07/2018	EFF-008	Cyanide	Daily Maximum	15	9.5	µg/L
12/07/2018	EFF-008	Lead	Daily Maximum	54	5.2	µg/L
12/07/2018	EFF-009	TCDD Equivalents	Daily Maximum	3.7E-08	2.8E-08	µg/L
01/07/2019	EFF-008	Copper	Daily Maximum	16	14	µg/L
01/07/2019	EFF-008	Lead	Daily Maximum	38	5.2	µg/L
01/07/2019	EFF-008	Radiation, Gross Alpha	Daily Maximum	19	15	pCi/L
02/01/2019	EFF-008	Lead	Daily Maximum	7.5	5.2	µg/L
02/01/2019	EFF-009	Nickel	Daily Maximum	170	86	µg/L
02/03/2019	EFF-011	Arsenic	Daily Maximum	11	10	µg/L
02/03/2019	EFF-011	Iron	Daily Maximum	9.6	0.3	mg/L
02/03/2019	EFF-011	Lead	Daily Maximum	8.4	5.2	µg/L
02/03/2019	EFF-011	Manganese	Daily Maximum	170	50	µg/L
02/03/2019	EFF-011	TCDD Equivalents	Daily Maximum	1.7E-07	2.8E-08	µg/L
02/08/2019	EFF-008	Nitrate, Total (as N)	Daily Maximum	8.6	8	mg/L
02/08/2019	EFF-008	Nitrite Plus Nitrate (as N)	Daily Maximum	8.6	8	mg/L
02/10/2019	EFF-008	Nitrate, Total (as N)	Daily Maximum	8.6	8	mg/L
02/10/2019	EFF-008	Nitrite Plus Nitrate (as N)	Daily Maximum	8.6	8	mg/L
02/15/2019	EFF-011	Iron	Daily Maximum	4.6	0.3	mg/L
02/15/2019	EFF-011	Manganese	Daily Maximum	86	50	µg/L
02/15/2019	EFF-011	TCDD Equivalents	Daily Maximum	3.9E-08	2.8E-08	µg/L
03/06/2019	EFF-018	pH	Instantaneous Minimum	6.41	6.5 - 8.5	SU
03/07/2019	EFF-011	Iron	Daily Maximum	0.84	0.3	mg/L
03/07/2019	EFF-011	TCDD Equivalents	Daily Maximum	3.3E-08	2.8E-08	µg/L
12/15/21	EFF-009	Copper	Daily Maximum	15	13	µg/L
12/30/21	EFF-011	Iron	Daily Maximum	5.1	0.3	mg/L
12/30/21	EFF-011	Iron	Daily Maximum	526	295	lb/day
12/30/21	EFF-011	Manganese	Daily Maximum	100	50	µg/L
12/30/21	EFF-011	TCDD	Daily Maximum	3.9E-08	2.8E-08	µg/L
1/5/22	EFF-018	Iron	Daily Maximum	0.53	0.3	mg/L
1/10/23	EFF-011	Manganese	Daily Maximum	61	50	µg/L
1/11/23	EFF-010	TCDD Equivalents	Daily Maximum	4.6E-08	2.8E-08	µg/L

Date	Location	Pollutant	Type of Limitation	Reported Value	Effluent Limitation	Units
1/17/23	EFF-011	Iron	Daily Maximum	0.78	0.3	mg/L
2/25/23	EFF-011	Iron	Daily Maximum	4.0	0.3	mg/L
2/25/23	EFF-011	Iron	Daily Maximum	570	295	lb/day
2/25/23	EFF-011	Manganese	Daily Maximum	79	50	µg/L
2/25/23	EFF-011	TCDD Equivalents	Daily Maximum	5.8E-08	2.8E-08	µg/L
3/16/23	EFF-011	Iron	Daily Maximum	3.2	0.3	mg/L

In 2010, the Los Angeles Water Board sought judicial civil penalties from Boeing for its failure to comply with the terms of its NPDES permit at the SSFL site. The Los Angeles Water Board and Boeing agreed to settle the matter pursuant to the terms of a Stipulated Consent Judgment and Final Order. Pursuant to the Consent Judgment, Boeing paid \$500,000 in civil penalties. Of that amount, \$300,000 was used to fund a Supplemental Environmental Project (SEP) by the Southern California Coastal Water Research Project (SCCWRP) to conduct design storm development work. Boeing also agreed to the imposition of stipulated penalties for any future violations of Boeing's NPDES permit from the period of January 1, 2010 through December 31, 2014. In 2014, the Los Angeles Water Board and Boeing agreed to extend the period for imposition of stipulated penalties through December 31, 2016. In 2017, the Los Angeles Water Board and Boeing again agreed to extend the period for imposition of stipulated penalties until December 31, 2021 and to extend the expiration date of the Consent Judgment to June 30, 2022. The amounts of the stipulated penalties vary depending on the type and the number of violations. Through the end of the 4th quarter 2021, Boeing paid \$296,500 in stipulated penalties for effluent limit violations under this penalty structure. The Los Angeles Water Board did not agree to extend the period for imposition of stipulated penalties beyond June 30, 2022. Additional violations beginning 1st quarter of 2022 have been reported by the Discharger. These are pending investigation from Los Angeles Water Board enforcement staff.

The Woolsey Fire began on November 8, 2018, during a high wind event. Approximately 80% of the SSFL site burned. The effects of the Woolsey Fire included the incomplete combustion of vegetation, of BMPs, and of piping used to transport collected stormwater around the site to the storage ponds and to the on-site stormwater treatment system at Silvernale Pond. On April 15, 2019, the Los Angeles Water Board received a request from the Discharger for relief from mandatory minimum penalties resulting from effluent limitation exceedances. Based on the information available following the Woolsey Fire regarding the drainage areas of the site that burned and the measures implemented, the Los Angeles Water Board determined that the effects of the fire could not have been prevented or avoided by the exercise of due care or foresight by the Discharger. Pursuant to Water Code Section 13385(j)(1)(B), effluent limitation violations occurring during the portion of the Fourth Quarter of 2018 when the Woolsey Fire began through the first quarter of 2019, during actions to clean up debris and make required repairs to infrastructure at the Facility, were granted approval for relief. Thus, violations that occurred between December 2018 and March 2019, following the Woolsey Fire, were dismissed pursuant to Water Code Section 13385(j)(1)(B) and the

Second Amended and Restated Consent Judgment, filed on June 27, 2017, between the Los Angeles Water Board and Boeing. Violations of TCDD Equivalents are not eligible for such relief under the Consent Judgment (Los Angeles Water Board letter dated June 27, 2019).

2.5. Planned Changes

The Discharger plans to begin pre-construction in late 2023 in the Area I Burn Pit that is adjacent to Discharge Point 011. Excavation activities will begin in 2024. The Discharger intends to apply for regulatory coverage under the Construction General Permit prior to the soil excavation and remediation work begins. Should there be additional remediation and/or demolition activities required to comply with its DTSC mandated cleanup, the Discharger shall consult with the Los Angeles Water Board to determine whether additional permit terms are necessary.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

3.1. Legal Authorities

This Order serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge locations described in Table 2 of the Order subject to the WDRs in this Order.¹

3.2. California Environmental Quality Act (CEQA)

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

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

3.3.1. Water Quality Control Plan. The Water Quality Control Plan for the Los Angeles Region (Basin Plan) designates beneficial uses, establishes water quality objectives (WQOs), 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.

¹ Although all industrial activity has ceased at the site, there is still ample legal authority on which to issue this Order to the Discharger. Specifically, there are still areas where industrial activity has taken place in the past and where significant materials remain and are exposed to stormwater; therefore, regulation is warranted pursuant 40 C.F.R. § 122.26(b)(14). Furthermore, certain areas of the site are already undergoing, or will undergo within the term of this Order, construction and land disturbance activities regulated pursuant to 40 C.F.R. § 122.26(b)(14)(x).

A number of the Discharge Points at SSFL discharge to the Los Angeles River via either Bell Creek or Dayton Canyon Creek. The beneficial uses applicable to Dayton Canyon Creek, Bell Creek, and the Los Angeles River are as follows:

Table F-6. Basin Plan Beneficial Uses Los Angeles River, Bell Creek, and Dayton Canyon Creek

Discharge Point	Receiving Water Name	Beneficial Use(s)
001, 002, 008, 011, 018	Los Angeles River above Balboa Blvd	<u>Existing:</u> Ground Water Recharge (GWR), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD) <u>Potential:</u> Municipal and Domestic Supply (MUN; Note a)
001, 002, 011, 018	Bell Creek	<u>Existing:</u> Wildlife Habitat (WILD) <u>Intermittent:</u> Ground Water Recharge (GWR), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM). <u>Potential:</u> Municipal and Domestic Supply (MUN; Note a)
008	Dayton Canyon Creek	<u>Existing:</u> Wildlife Habitat (WILD) <u>Intermittent:</u> Ground Water Recharge (GWR), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM). <u>Potential:</u> Municipal and Domestic Supply (MUN; Note a)

Footnotes for Table F-6

- a. MUN is designated under State Water Board Resolution No. 88-63 and Los Angeles Water Board Resolution No. 89-03. However, the Los Angeles Water Board has only conditionally designated these receiving waters with the MUN beneficial use; therefore, effluent limitations implementing the MUN beneficial use are not included at this time.

End of Footnotes for Table F-6

Stormwater runoff from Discharge Points 003 to 007, 009, and 010, flows to the northwest and down Meir and Runkle Canyons toward Arroyo Simi. Arroyo Simi is a tributary to Calleguas Creek. The beneficial uses for the receiving water are listed below.

Table F-7. Basin Plan Beneficial Uses Arroyo Simi

Discharge Point	Receiving Water Name	Beneficial Use(s)
003 to 007, 009, 010	Arroyo Simi	<p><u>Existing:</u> Wildlife Habitat (WILD), Rare, Threatened or Endangered Species Habitat (RARE).</p> <p><u>Intermittent:</u> Industrial Process Supply (PROC), Ground Water Recharge (GWR), Freshwater Replenishment (FRSH), Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM).</p> <p><u>Potential:</u> Municipal and Domestic Supply (MUN; Note a)</p>

Footnotes for Table F-7.

- a. MUN is designated under State Water Board Resolution No. 88-63 and Los Angeles Water Board Resolution No. 89-03. However, the Los Angeles Water Board has only conditionally designated these receiving waters with the MUN beneficial use; therefore, effluent limitations implementing the MUN beneficial use are not included at this time.

End of Footnotes for Table F-7.

- 3.3.2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain federal water quality criteria for priority pollutants. Requirements of this Order implement these criteria.
- 3.3.3. **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 U.S. EPA through the NTR and to the priority pollutant objectives established by the Los Angeles Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by 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. The SIP generally does not apply to discharges composed only of stormwater. However, consistent with State Board Order 2006-0012 (*In the Matter of the Petition of Boeing Company*), the Los Angeles Water Board has determined it is appropriate to apply the SIP because of the nature of the

activities conducted at the Facility. Therefore, the requirements of this Order implement the SIP.

- 3.3.4. **Antidegradation Policy.** Federal regulation 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 "Statement of Policy with Respect to Maintaining High Quality of Waters in California". Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Los Angeles Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge is consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16 as described in section 4.4.2 of this Fact Sheet.
- 3.3.5. **Anti-Backsliding Requirements.** Sections 402(o) 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. This Order complies with the anti-backsliding provisions as discussed in finding 4.4.1 of this Fact Sheet.
- 3.3.6. **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. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- 3.3.7. **Domestic Water Quality.** 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 sanitation purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels developed to protect human health and ensure that water is safe for domestic use.
- 3.3.8. **Trash Amendments.** The State Water Board adopted the "*Amendment to the Ocean Plan and Part I Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*" (Trash Amendments) through Resolution Number 2015-0019, which was approved by the Office of Administrative Law (OAL) on December 2, 2015 and became effective upon U.S. EPA approval on January 12, 2016. The Trash Amendments established a narrative water quality objective and a prohibition on the discharge of trash, to be implemented through permits issued pursuant to CWA section

402(p), waste discharge requirements, or waivers of waste discharge requirements.

The Trash Amendments apply to all surface waters of the State, with the exception of those waters within the jurisdiction of the Los Angeles Water Board where trash or debris Total Maximum Daily Loads (TMDLs) are in effect prior to the effective date of the Trash Provisions. This Order does not cover receiving waters subject to a Trash TMDL. As such, this Order implements the requirements of the Trash Amendments through the prohibition of trash discharges to the NPDES discharge points. The Trash Amendments did not prescribe specific monitoring and reporting requirements for individual NPDES permittees; as such, this Order requires the Discharger to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The requirement to develop and implement a SWPPP is consistent with the monitoring and reporting requirements for General Industrial Storm Water Permittees due to similarity of the type of discharge, as the Facility's discharge consists of stormwater only from an industrial site. The SWPPP shall include specific BMPs used as stormwater control measures that the Discharger will undertake to prevent the discharge of trash from the Facility. The Discharger is required to detail and submit to the Los Angeles Water Board annually (through their annual SWPPP submittal) specific BMPs (stormwater control measures) employed to control and prohibit the discharge of trash and other pollutants from the Facility through its NPDES discharge points to satisfy the monitoring and reporting requirement of the Trash Provisions.

- 3.3.9. **Mercury Provisions.** The State Water Board adopted "*Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE); Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions*" (Mercury Provisions) through Resolution No. 2017-0027, which was approved by the Office of Administrative Law (OAL) on June 28, 2017 and became effective upon U.S. EPA approval on July 14, 2017. The Mercury Provisions established one narrative and four numeric water quality objectives for mercury and three new beneficial use definitions. These provisions must be implemented through NPDES permits issued pursuant to CWA section 402, waste discharge requirements, or waivers of waste discharge requirements. The Mercury Provisions included specific implementation provisions for individual non-stormwater NPDES permits for municipal and industrial dischargers; stormwater discharges regulated by Municipal Separate Storm Sewer System (MS4) permits and the Industrial General Permit; as well as for stormwater from mine site remediation sites; dredging activities; wetland projects and nonpoint source discharges. Because this discharge is comprised of stormwater, this Order implements the requirements in the Mercury Provisions for stormwater NPDES permits.

The Mercury Provisions converted the fish tissue-based water quality objectives to water column values for reasonable potential analysis and development of effluent limitations. In accordance with Chapter IV.D.2.b in Mercury Provisions, the Los Angeles Water Board applies section 1.3 of SIP with modifications to

determine whether a discharge has reasonable potential to cause or contribute to an exceedance of the water column concentration for mercury and the development of effluent limitations for mercury based on the applicable water column concentration or “C” value for the receiving water. For flowing water bodies like Bell Creek, Arroyo Simi and Dayton Canyon Creek, the water column concentration value is 12 ng/L for total mercury. Reasonable potential was determined for discharges to Arroyo Simi and Dayton Canyon: Discharge Points 003 through 007, 009, 010 and Discharge Point 008, respectively. This Order includes effluent limitations calculated in accordance with the Mercury Provisions for these Discharge Points.

In some cases, however, reasonable potential could not be determined by a data-driven calculation. According to the Mercury Provisions, “non-detect” data with the detection limit higher than 4 ng/L are not suitable for a reasonable potential analysis. Effluent sample results were reported as “non-detect” for Discharge Points 001, 002, 0011 & 018 for the monitoring period between April 2015 and March 2023 with a method detection limit that was greater than 4 ng/L. Therefore, this Order carries over the existing mercury effluent limitations for Discharge Points 001, 002, 011 & 018 to avoid backsliding until the site-specific value is established and reasonable potential can be assessed.

In addition, this Order establishes monitoring requirements for mercury in the effluent and receiving water with the new detection limit of 0.5 ng/L, which the Mercury Provisions specify as a quantification limit for the water samples.

3.3.10 Bacteria Provisions. On August 7, 2018, the State Water Board adopted Resolution No. 2018-0038, bacteria provisions and a water quality variance policy as (1) *Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California* (Bacteria Provisions); and (2) an amendment to the *Water Quality Control Plan for Ocean Waters of California*. The goals of the Bacteria Provisions are to (1) establish a beneficial use definition of limited water contact recreation (LREC-1); (2) establish new statewide numeric water quality objectives for bacteria to protect primary contact recreation (REC-1) beneficial use; (3) include implementation elements; and (4) create a water quality standards variance framework under provisions established by the U.S. EPA. OAL approved the regulatory action on February 4, 2019. On March 22, 2019 U.S. EPA approved the Bacteria Provisions and they became effective. The water quality objectives supersede any numeric water quality objectives for bacteria for the protection of the REC-1 beneficial use in the Basin Plan, except in certain circumstances, such as where there are Waste Load Allocations (WLAs) established by a Total Maximum Daily Load (TMDL) in effect prior to March 22, 2019. This Order implements the applicable numeric water quality objectives for bacteria included in the Bacteria Provisions for discharges to Arroyo Simi. This Order does not implement the numeric water quality objectives in the Bacteria Provisions for discharges to Bell Creek and Dayton Canyon Creek because the Los Angeles River Bacteria TMDL became effective prior to March 22, 2019, as described in section 3.5.

3.3.11. Toxicity Provisions

Beginning in May 2013 the Los Angeles Water Board began incorporating into the NPDES permits for POTWs and industrial facilities numeric water quality objectives for both acute and chronic toxicity, using the Test of Significant Toxicity (TST), and a program of implementation to control toxicity. As explained later in the Fact Sheet, this approach is a preferred statistical method because it provides a higher confidence in results classifying in-waste stream concentrations as toxic or non-toxic and it is supported by U.S. EPA. This methodology is used in the existing permit and is carried over into this permit. On December 1, 2020, the State Water Board adopted statewide numeric water quality objectives for both acute and chronic toxicity, using the test of Significant Toxicity (TST) statistical approach, and a program of implementation to control toxicity, which are collectively known as the Toxicity Provisions. On October 5, 2021, the State Water Board adopted a resolution rescinding the December 1, 2020 establishment of Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California and confirming that the Toxicity Provisions were adopted as a State Policy for Water Quality Control, for all inland surface waters, enclosed bays, estuaries, and coastal lagoons of the state. The Toxicity Provisions establish a uniform regulatory approach to provide consistent protection of aquatic life beneficial uses and protect aquatic habitats and life from the effects of known and unknown toxicants. The California Office of Administrative Law and U.S. EPA approved the Toxicity Provisions on April 25, 2022, and May 1, 2023, respectively. This Order implements the Toxicity Provisions.

3.4. Watershed Management Approach

The Los Angeles Water Board has implemented a Watershed Management Approach, in accordance with *Watershed Protection: A Project Focus* (EPA841-R-95-003, August 1995), to address water quality protection in the Los Angeles Region. Programs covered under the Watershed Management Approach include regulatory (e.g., NPDES) monitoring and assessment, basin planning and water quality standards, watershed management, wetlands, TMDLs, 401 certifications, groundwater (as appropriate), and nonpoint source management activities. The Watershed Management Approach integrates the Los Angeles Water Board's many diverse programs, particularly, permitting, planning, and other surface-water oriented programs. It emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available. This approach facilitates a more accurate assessment of cumulative impacts of pollutants from both point and nonpoint sources.

The Los Angeles River watershed is one of the largest in the Region. The headwaters of the Los Angeles River originate in the Santa Monica, Santa Susana, and San Gabriel Mountains. The river flows through industrial and commercial areas and is bordered by rail yards, freeways, and major commercial and government buildings. The Los Angeles River tidal prism/estuary begins in Long Beach at Willow Street and runs approximately three miles before joining with Queensway Bay located between the Port of Long Beach and the City of Long Beach.

The area where SSFL is located is largely undeveloped. The majority of the Los Angeles River Watershed downstream of the site is considered impaired due to a variety of point and nonpoint sources. Discharges from Discharge Points 001, 002, 011, and 018 enter Bell Creek, a tributary to the Los Angeles River. Stormwater from Happy Valley, Discharge Point 008 exits the site toward Dayton Canyon Creek, which flows into Chatsworth Creek. Chatsworth Creek flows southward to Bell Creek, near the intersection of Sherman Way and Shop Avenue, and subsequently to the Los Angeles River.

The Calleguas Creek Watershed extends from the Santa Monica Mountains and Simi Hills in the south, to the Santa Susana Mountains, South Mountain, and Oak Ridge in the north. Land uses vary throughout the watershed. Urban developments are generally restricted to the city limits of Simi Valley, Moorpark, Thousand Oaks, and Camarillo. Agricultural activities are spread out along valleys and on the Oxnard Plain. Stormwater runoff exiting the SSFL site to the north does so near the northwest site boundary from Discharge Points 003 to 007, 009 and 010. The receiving water for the stormwater runoff from these locations is the Arroyo Simi, a tributary of Calleguas Creek.

3.5. Impaired Water Bodies on the CWA section 303(d) List

Section 303(d) of the Clean Water Act (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 Los Angeles Water Board develops and adopts Total Maximum Daily Loads (TMDLs) that specify waste load allocations (WLA) for point sources and load allocations (LAs) for non-point sources, as appropriate.

The State Water Board adopted the 2020-2022 California Integrated Report based on a compilation of the Los Angeles Water Boards' Integrated Reports. These Integrated Reports contain both the Clean Water Act (CWA) section 305(b) water quality assessment and section 303(d) list of impaired waters. In developing the Integrated Reports, the Water Boards solicit data, information, and comments from the public and other interested persons. On January 19, 2022 the State Water Board approved the CWA Section 303(d) List portion of the State's 2020-2022 Integrated Report (State Water Board Resolution Number 2022-0006). The CWA section 303(d) List can be found at the following link:

https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html

On May 11, 2022, U.S. EPA approved California's 2020-2022 Integrated Report. 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 2020-2022 303(d) List and have been scheduled for TMDL development. The Facility discharges into Bell Creek, which ultimately discharges into the Los Angeles River. The 2020-2022 State Water Board's California 303(d) List identifies Bell Creek as impaired for bacteria. The Bacteria TMDL adopted for the Los Angeles River and its tributaries addresses the bacteria impairment in Bell Creek and Dayton Canyon Creek and applies to discharges from SSFL Discharge Points 001, 002, 008, 011, and 018.

Arroyo Simi, the receiving water for stormwater discharges from the northern boundary of the SSFL, is in the Calleguas Creek Watershed and appears on the State's 2020-2022 303(d) List. The 2020-2022 303(d) list identifies the following impairments: ammonia, boron, chloride, chlorpyrifos, diazinon, indicator bacteria, organophosphate pesticides, sedimentation/siltation, sulfates, total dissolved solids, toxicity, and trash. Several TMDLs adopted for Calleguas Creek to address these listings are applicable to Arroyo Simi and to the discharges from SSFL Discharge Points 003 through 007, 009, and 010.

The following are summaries of the applicable TMDLs for the Los Angeles River and Calleguas Creek watersheds to this Facility.

3.5.1. Los Angeles River Nitrogen Compounds and Related Effects (Nutrients)

TMDL. The TMDL for Nitrogen Compounds and Related Effects (nutrients) in the Los Angeles River was adopted by the Los Angeles Water Board on July 10, 2003 (Basin Plan Chapter 7, page 85). The TMDL became effective on March 23, 2004, and it includes WLAs for ammonia as nitrogen (NH₃-N), Nitrate-nitrogen, and nitrite-Nitrogen for the Los Angeles River and its tributaries. The WLAs included for point source discharges to the tributaries of the Los Angeles River have been implemented in this Order as effluent limits.

3.5.2. Los Angeles River Watershed Bacteria TMDL. The Los Angeles Water Board adopted the Los Angeles River Bacteria TMDL on July 9, 2010 (Basin Plan Chapter 7-467)). It became effective on March 23, 2012. Consistent with the WLAs assigned to individual NPDES permits in the TMDL, this Order provides zero exceedances of the single sample and geometric mean targets. This Order requires compliance with the WLAs in the receiving water per implementation language in the TMDL.

3.5.3. Los Angeles River Metals TMDL. The Los Angeles Water Board adopted the Los Angeles River and Tributaries Metals TMDL on September 6, 2007 (Basin Plan Chapter 7-139). The Los Angeles Water Board amended the TMDL on April 9, 2015 to incorporate a water effect ratio for copper and a recalculated lead criterion (Note: the lead site-specific objectives for the Los Angeles River and its tributaries, as approved by U.S. EPA, only apply to urbanized portions of the watershed). The amended TMDL (Resolution No. R15-004) became effective on December 12, 2016. Effluent limits for cadmium, copper, lead, and zinc in discharges to Bell Creek, Dayton Canyon Creek, or any tributaries of the Los Angeles River are based on WLAs established by the TMDL.

3.5.4. Calleguas Creek Toxicity, Chlorpyrifos, and Diazinon TMDL. On July 7, 2005, the Los Angeles Water Board adopted Resolution No. R4-2005-009 (Basin Plan Chapter 7-181), the TMDL for Toxicity, Chlorpyrifos, and Diazinon in Calleguas Creek, its Tributaries, and Mugu Lagoon (Toxicity TMDL). This Resolution was approved by the State Water Board, Office of Administrative Law, and U.S. EPA on September 22, 2005, November 27, 2005, and March 14, 2006, respectively. The TMDL became effective on March 24, 2006. This Order includes receiving water limitations for chlorpyrifos and diazinon consistent with the WLAs and Implementation Plan in the Toxicity TMDL.

The Toxicity TMDL includes a WLA of 1.0 TUC for toxicity, which is required to be implemented in accordance with U.S. EPA, State Water Board, and Regional Water Board resolutions, guidance and policy at the time of permit issuance or renewal. Consistent with the Toxicity TMDL Implementation Plan, this toxicity WLA is implemented using the recent U.S. EPA guidance, National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June 2010).

- 3.5.5. **Calleguas Creek OC Pesticides & PCBs TMDL.** The Los Angeles Water Board adopted the Calleguas Creek TMDL for Organochlorine (OC) Pesticides and Polychlorinated Biphenyls (PCBs) and Siltation on July 7, 2005 (Basin Plan Chapter 7-191). The TMDL became effective on March 14, 2006. The WLAs for OC pesticides and PCBs in sediment have been translated directly into receiving water limits in the sediment of Arroyo Simi consistent with the WLAs and Implementation Plan in the TMDL.

3.5.6. **Calleguas Creek Watershed Metals TMDL.**

The Los Angeles Water Board adopted the Calleguas Creek Watershed Metals TMDL on June 8, 2006 (Basin Plan Chapter 7-223). The TMDL became effective on March 26, 2007. The TMDL includes WLAs for total recoverable copper, total recoverable nickel and mercury.

The WLAs for mercury and copper are 0.051 and 31.0 µg/L, respectively, expressed as daily maximum values, and are incorporated in this Order for Discharge Points 003 to 007, 009, and 010 directly. The TMDL-based daily maximum effluent limit for nickel (958 µg/L), which was developed to protect aquatic life in the lower Calleguas Creek and Mugu Lagoon, is greater than the Title 22-based MCL limit of 100 µg/L. Since the groundwater basin below the Arroyo Simi has municipal and domestic supply as an existing beneficial use and Arroyo Simi has groundwater recharge as an intermittent beneficial use, the effluent limitation implemented must be protective of both groundwater recharge and of the downstream aquatic life beneficial uses. Therefore, the 100 µg/L effluent limitation, which is protective of the groundwater recharge beneficial use of Arroyo Simi and the MUN beneficial use for the groundwater basin below it, has been implemented for nickel.

- 3.5.7. The following TMDLs developed for Calleguas Creek are not applicable to discharges from SSFL:

- a. Calleguas Creek Salts TMDL (Basin Plan Chapter 7-267)
- b. Calleguas Creek Nitrogen Compounds and Related Effects TMDL (Basin Plan Chapter 7-79)
- c. Revolon Slough & Beardsley Wash Trash TMDL (Basin Plan Chapter 7-299)

3.6. Title 22 of the California Code of Regulations

The California Department of Public Health (CDPH) established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22. The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by

reference is prospective, including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect groundwater recharge (GWR) beneficial use. Also, the Basin Plan specifies that “Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.”

Sections of Dayton Canyon Creek, Bell Creek and Arroyo Simi, near the SSFL discharge points, are designated as GWR indicating that groundwater recharge is a beneficial use. Surface water from Dayton Canyon Creek and Bell Creek enters the Los Angeles River Watershed. The headwaters of the Los Angeles River originate in the Santa Monica, Santa Susana, and San Gabriel Mountains. Four basins in the San Fernando Valley area contain substantial deep groundwater reserves and are recharged mainly through runoff and infiltration.

Surface water discharges from the northwest edge of SSFL are directed to Arroyo Simi, a tributary located in the Calleguas Creek Watershed. Supplies of groundwater are critical to agricultural operations and industry (sand and gravel mining) in the watershed. Moreover, much of the population in the watershed relies upon groundwater for drinking. Since groundwater from these basins is used to provide drinking water to a large portion of the population, Title 22-based limits are needed to protect that drinking water supply. By limiting the pollutants in SSFL discharges, the amount of pollutants entering the surface waters and groundwater basins are correspondingly reduced. Once groundwater basins are contaminated, it may take years to clean them up depending on the pollutants. Compared to surface water pollution, investigation and remediation of groundwater are often more difficult, costly, and extremely slow. For these reasons, Title 22 MCLs will remain in the NPDES permit where there is reasonable potential.

3.7. Other Plans, Policies and Regulations

3.7.1. Climate Change Adaptation and Mitigation. On March 7, 2017, the State Water Board adopted a resolution in recognition of the challenges posed by climate change that requires a proactive approach to climate change in all State Water Board actions, including drinking water regulation, water quality protection, and financial assistance (Resolution No. 2017-0012). The resolution lays the foundation for a response to climate change that is integrated into all State Water Board actions, by giving direction to the State Water Board divisions and encouraging coordination with the Los Angeles Water Board. On May 10, 2018, the Los Angeles Water Board also adopted “A Resolution to Prioritize Actions to Adapt to and Mitigate the Impacts of Climate Change on the Los Angeles Region’s Water Resources and Associated Beneficial Uses” (Resolution No. R18-004). The resolution summarizes the steps taken so far to address the impacts of climate change within the Los Angeles Water Board’s programs and lists a series of steps to move forward. These include the identification of potential regulatory adaptation and mitigation measures that could be implemented on a short-term and long-term basis by each of the Los Angeles Water Board’s programs to take into account, and assist in mitigating where possible, the effects of climate change on water resources and associated

beneficial uses. This Order contains provisions to require planning and actions to address climate change impacts in accordance with both the State and Los Angeles Water Boards' resolutions.

The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan) and submit the Climate Change Plan to the Los Angeles Water Board for the Executive Officer's approval no later than 12 months after the effective date of this Order. The Climate Change Plan shall include an assessment of short and long-term vulnerabilities of the Facility and operations as well as plans to address any Facility vulnerabilities, of stormwater collection and conveyance systems, facilities, treatment systems, and Discharge Points for predicted impacts in order to ensure that Facility operations are not disrupted, compliance with permit conditions is achieved, and receiving waters are not adversely impacted by discharges. Control measures shall include, but are not limited to, emergency procedures, contingency plans, alarm/notification systems, training, backup power and equipment, and the need for planned mitigations to ameliorate climate-induced impacts including, but not limited to, changing influent and receiving water quality and conditions, as well as the impact of rising sea level (where applicable), wildfires, storm surges and back-to-back severe storms which are expected to become more frequent.

- 3.7.2. **Environmental Justice and Advancing Racial Equity.** When issuing or reissuing individual waste discharge requirements or waivers of waste discharge requirements that regulate activity or a facility that may impact a disadvantaged or tribal community, and that includes a time schedule in accordance with subdivision (c) of Section 13263 for achieving an applicable water quality objective, an alternative compliance path that allows time to come into compliance with water quality objectives, or a water quality variance, the regional board shall make a finding on potential environmental justice, tribal impact, and racial equity considerations (Water Code § 13149.2, effective Jan. 1, 2023). Water Code section 189.7 requires the Los Angeles Water Board to engage in equitable, culturally relevant community outreach to promote meaningful civil engagement from potentially impacted communities of proposed discharges of waste that may have disproportionate impacts on water quality in disadvantaged and/or tribal communities.

This Order does not include a time schedule, alternative compliance path, or variance. Therefore, Water Code section 13149.2 does not apply to this permit reissuance. Nevertheless, the Los Angeles Water Board anticipates that the issuance of this Order will not result in water quality impacts to disadvantaged or tribal communities because the Order requires the Permittee to meet water quality standards to protect public health and the environment.

Additionally, extensive public outreach has been conducted during the development of this Order. While no disadvantaged communities (DAC) have been identified in the area of SSFL, multiple tribal communities were identified. The Los Angeles Water Board conducted outreach consistent with Water Code section 189.7 by reaching out to tribal communities about this Order.

Furthermore, the Los Angeles Water Board is committed to developing and implementing policies and programs to advance racial equity and environmental justice so that race can no longer be used to predict life outcomes, and outcomes for all groups are improved.

4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and priority toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR 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.

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

Order No. R4-2015-0033 contained effluent limitations for pH, temperature, TSS, BOD, oil and grease, turbidity, settleable solids, and residual chlorine, due to the fact that these are the typical pollutants of concern in drainage from settling basins. Effluent limitations for TDS, chloride, nitrate plus nitrite (as Nitrogen), sulfate, and residual chlorine, were based on water quality objectives contained in the Basin Plan. Effluent limitations for some priority toxic pollutants were based on an analysis of effluent monitoring data and the applicable water quality criteria. Order R4-2015-0033 also included “benchmarks” to evaluate the effectiveness of BMPs at Outfalls 001 and 002. If exceeded, these benchmarks did not trigger violations of the permit.

The reasonable potential analysis (RPA) to determine impacts from the discharge was conducted using data from the second quarter of 2015 to the first quarter of 2023. This Order carries over the effluent limitations from Order R4-2015-0033 except as described below:

- This Order converts the benchmarks at Discharge Point 001 and 002 into enforceable effluent limitations. The State Water Board WQ Order 2006-0012 held that “Outfalls 001 and 011 and Outfalls 002 and 018 are duplicative because Outfalls 011 and 018 flow directly to Outfalls 001 and 002, respectively, *without any change in flows or discharge in the interim* and with only open space between them.” (emphasis added). However, with the implementation of the stormwater treatment

systems at Outfalls 011 and 018 beginning in 2010 as well as the initiation of remediation activities, the Los Angeles Water Board has determined that the discharges can no longer be considered unchanged from the interior outfalls (Outfalls 011 and 018) to the perimeter outfalls (Outfalls 001 and 002), respectively. It is consistent with the applicable laws and regulations to include additional compliance points at Outfalls 001 and 002. Federal regulations require NPDES permits to include monitoring that assures compliance with the permit limitations (40 CFR 122.44(i). Effluent monitoring locations must be representative of the effluent being discharged into the receiving water(s). (40 CFR 122.48(b).). Per U.S. EPA guidance, “[e]ffluent monitoring locations should be established after all industrial uses and treatment processes.” (Permit Writers Handbook, section 8.1.2.3. p. 8-4). The Guidance also states that it is appropriate to require “effluent monitoring ...to provide data to assess the possible impact of the discharge on the receiving water.” (Id.) Here, there are different treatment processes that will apply to the storm water discharges at the interior and perimeter outfalls. Stormwater discharges routed to the Silvernale and R-1 Ponds at Outfalls 011 and 018 are treated through a multi-step treatment system similar to what is used to treat drinking water. However, not all the discharges that reach Outfalls 001 and 002 are routed to these ponds for treatment. The discharges that are not routed to the ponds, are currently being evaluated for cleanup and removal of contaminated soils under DTSC’s oversight. There is additional evidence that that discharges are distinct in character and timing for the following reasons:

- The discharges from these outfalls do not always occur during the same discharge events even though the perimeter outfalls are downstream. The different flow patterns can occur because stormwater is captured and retained for treatment prior to discharge. Once the treated stormwater is released from the treatment system it is generally expected to reach the perimeter within 4-6 hours. Review of monitoring data provided by the Discharger show numerous discharge events that occur at the perimeter outfalls where there is no corresponding discharge from the interior outfalls. For example, during some discharge events Outfall 002 has flow even when there is no flow upstream at Outfall 018. One specific example is this: Outfall 002 had flow on February 24, 2023, while Outfall 018 did not have flow until February 26, 2023. The fact that the discharge patterns can be distinct at the interior and perimeter outfalls denotes that it is inappropriate to pair these outfalls for compliance purposes for all discharge events.
- There are tributaries that contribute to the discharge at Outfalls 001 and 002 that are not routed through Outfalls 011 and 018. This means that discharges from Outfalls at 011 and 018 are not representative of the discharges Outfalls 001 and 002. See Attachment B-2.
- Available data suggests that significant materials associated with past industrial activity are already present within the undeveloped area between the interior and perimeter outfalls. For example, the Los Angeles Water Board staff’s review of the RCRA Facility Investigation group reports identifies “chemical use areas” within the undeveloped area for parameters in the soil

that show impacts above characterization levels. Additionally, portions of the Facility that are currently undergoing remediation activities have shown impacts extending into the undeveloped area downstream of the interior outfalls (Outfalls 011 and 018) (CH2M, 2019 and 2021²). As remediation occurs in these areas there is increased risk that sediments may be transported into the undeveloped area that are not being captured at the interior outfalls, thereby impacting the Outfall 001 and 002 drainages with constituents that are not considered to be related to background concentrations. The table below is an example of the results for copper and lead to demonstrate differences in concentration in the paired outfalls with the corresponding sample dates. As shown below, the paired outfall locations, Outfalls 001/011 and Outfalls 002/018, show different chemical characteristics of discharges. In some cases, the perimeter outfalls have higher concentrations of copper and lead than the interior outfalls, suggesting that there are other sources in the undeveloped area that are contributing to these metals' concentrations.

Location	Parameter	Result (in µg/L)	Sampling Date
Outfall 001	Copper, Total	5.5	2/18/2017
Outfall 011	Copper, Total	4.3	2/18/2017
Outfall 002	Copper, Total	1.5 (DNQ)	2/18/2017
Outfall 018	Copper, Total	4.5	2/18/2017
Outfall 001	Lead, Total	4.1	2/18/2017
Outfall 011	Lead, Total	2	2/18/2017
Outfall 002	Lead, Total	1.9	2/18/2017
Outfall 018	Lead, Total	2.1	2/18/2017
Outfall 001	Copper, Total	6.7	12/26/2021
Outfall 011	Copper, Total	4.6	12/30/2021
Outfall 002	Copper, Total	1.6 (DNQ)	12/28/2021
Outfall 018	Copper, Total	2.4	12/28/2021
Outfall 001	Lead, Total	3	12/26/2021
Outfall 011	Lead, Total	3.5	12/30/2021
Outfall 002	Copper, Total	5.5	1/11/2023
Outfall 018	Copper, Total	2.2	1/11/2023
Outfall 001	Copper, Total	3.5	1/20/2023
Outfall 011	Copper, Total	1.4 (DNQ)	1/20/2023
Outfall 011	Lead, Total	3.2	2/25/2023
Outfall 001	Lead, Total	2.3	2/26/2023

² RCRA Facility Investigation Data Summary and Findings Report Boeing RFI Subarea 5/9 South Santa Susana Field Laboratory Ventura County, California, December 2019.

RCRA Facility Investigation Data Summary and Findings Report Boeing RFI Subarea 1B Southwest, Santa Susana Field Laboratory, Ventura County, California, March 2021.

The variability of the above data indicates that the perimeter outfalls cannot be assumed to be representative of the interior outfalls, and vice versa.

In light of all of the above, compliance points at the perimeter outfalls (Outfalls 001 and 002) in this Order are needed to ensure that the cleanup activities are not mobilizing pollutants in stormwater runoff leaving the Facility. To be consistent with the direction in WQ 2006-0012, this Order treats effluent limitation exceedances at paired outfalls as a single violation if they occur during the same discharge event and if the exceedances involve the same pollutant parameter(s) (See the Compliance Determination section 7.17 of the Order).

- Established new effluent limitations for aluminum, benzidine, 3,3'-dichlorobenzidine, Indeno(1,2,3-cd) pyrene, heptachlor, and 4,4'-DDE at Discharge Points 001, 002, 011, and 018 based on RPA.
- Removed effluent limitation for iron from Discharge Points 011 and 018 based on RPA.
- Established new effluent limitations for aluminum, pentachlorophenol, bis(2-ethylhexyl phthalate at Discharge Points 003 through 007, 009, and 010 based on RPA.
- Established new effluent limitations for aluminum, arsenic, benzidine, 3,3'-dichlorobenzidine, and 4,4'-DDE at Discharge Point 008 based on RPA.
- Removed for antimony, nickel, thallium, and 2,3,7,8 TCDD for Discharge Point 008 based on RPA.
- Removed the dry-weather effluent limitations for TSS, settleable solids, cadmium and selenium at Discharge Points 011 and 018; and cadmium and selenium at Discharge Point 008 based on dry-weather discharge prohibition.
- Revised effluent limitations for copper and zinc based on applicable TMDLs.
- Revised temperature effluent limitation based on the Basin Plan water quality objective.

4.1. Discharge Prohibitions

Discharge Prohibitions in this Order are based on the federal CWA, the CFR, the Basin Plan, the Water Code, State Water Board's plans and policies, U.S. EPA guidance and regulations, and the previous permit provisions. This Order includes a prohibition for trash in order to implement the statewide Trash Provisions. The discharge prohibitions included in this Order are consistent with the requirements set for other dischargers within the Los Angeles Region that are regulated by NPDES permits.

4.2. Technology-Based Effluent Limitations (TBELs)

- 4.2.1. **Scope and Authority.** Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 CFR section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal

technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 C.F.R. section 125.3(c), (d).

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 a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.
- d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

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

4.2.2. Applicable TBELs

Federal ELGs have not been developed for stormwater runoff from this Facility. Therefore, this Order includes technology based effluent limitations based on BPJ in accordance with 40 C.F.R. section 125.3. Numeric effluent limitations for BOD and oil and grease have been included consistent with the limits from the previous two permits (Order No. R4-2015-0033 and R4-2010-0090) since they continue to be appropriate for the discharge. In setting these limitations, the Los Angeles Water Board considered the factors listed in 40 C.F.R sections 125.3(c) and 125.3(d) and concluded that the limits were appropriate. The discharge from the Facility contains conventional pollutants (e.g., BOD, oil and grease) that are controlled through best practicable control technology currently available (BPT) and best available technology economically achievable (BCT) to prevent

exceedance of the receiving water quality objectives for those pollutants and prevent adverse impacts on the beneficial uses of the receiving water body. The limitations for Discharge Points 001, 002, 011 and 018 are summarized in Table F-8. The limitations for Discharge Points 003-010 are summarized in Table F-9. These effluent limitations are consistent with the TBELs included in other orders within the State for similar types of wet-weather discharges. They are included in this Order to ensure that discharges from the Facility meet the level of treatment attainable by other industrial facilities within the state using existing technologies that are practical, available, and economically achievable. Pursuant to state and federal anti-backsliding regulations, this Order retains effluent limitations for these pollutants as technology-based effluent limitations. However, the TBELs for TSS and settleable solids that were included in the previous two permits (Order No. R4-2015-0033 and R4-2010-0090) are not included in this Order because those limitations were for dry-weather discharges only. This Order no longer permits dry-weather discharges, so these limitations have not been carried over.

Table F-8. Summary of Technology-Based Effluent Limitations at Discharge Points 001, 002, 011, and 018

Parameters	Units	Maximum Daily Effluent Limitations	Notes
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	30	a
Oil and Grease	mg/L	15	a

Footnotes for Table F-8

- a. TBEL for this parameter is included in this Order pursuant to BPT requirements (40 CFR section 125.3(d)(1); 40 CFR section 125.3(c)(2)).

End of Footnotes for Table F-8

Table F-9. Summary of Technology-Based Effluent Limitations at Discharge Points 003, 004, 005, 006, 007, 008, 009, and 010

Parameter	Units	Maximum Daily Effluent Limitations	Notes
Oil and Grease	mg/L	15	a

Footnotes for Table F-9

- a. TBEL for this parameter is included in this Order pursuant to BPT requirements (40 CFR section 125.3(d)(1); 40 CFR section 125.3(c)(2)).

End of Footnotes for Table F-9

4.3. Water Quality-Based Effluent Limitations (WQBELs)

- 4.3.1. **Scope and Authority.** CWA Section 301(b) and 40 CFR 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) of 40 CFR requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, 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 Waste Load Allocations (WLAs) (U.S.EPA's *NPDES Permit Writers' Manual*, (EPA-833-K-10-001, September 2010)).

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

The specific procedures for determining reasonable potential and, if necessary, for calculating WQBELs are contained in U.S. EPA's *Technical Support Document For Water Quality-based Toxics Control* (EPA/505/2-90-001,1991) (TSD) for stormwater discharges and in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Plan or SIP) for non-stormwater discharges. The TSD in section 3.3.8 in the first 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.*"

The Los Angeles Water Board has determined the procedures for determining reasonable potential and calculating WQBELs contained in the SIP for non-stormwater discharges may be used to evaluate reasonable potential and calculate WQBELs for stormwater discharges as well. As described in the statement from the TSD, an analogous approach may also be used to evaluate reasonable potential and calculate WQBELs for stormwater discharges. Hence, for this Order, the Los Angeles Water Board has used the SIP methodology to evaluate reasonable potential for discharges through all discharge points regulated by this Order.

- 4.3.2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives.** The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for water bodies in the Los Angeles region. The beneficial uses applicable to the

Arroyo Simi, Bell Creek and Dayton Canyon Creek are summarized in section 3.3.1. of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving waters.

- a. **pH.** The effluent limitation for pH in this permit requiring that the wastes discharged shall at all times be within the range of 6.5 to 8.5 is taken from the Basin Plan (page 3-40) which reads “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 this Order.
- b. **Turbidity.** The Basin Plan requirements for turbidity are as follows:
 - i. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%.
 - ii. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

This Order applies the water quality objective for turbidity as a receiving water limitation.

- c. **Temperature.** Order No. R4-2015-0033 included an effluent limitation of 86 °F. This Order updates the temperature effluent limitation to 80 °F to align it with the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation such as Bell Creek and the Arroyo Simi. The applicable WQO states:
“For waters designated WARM, water temperature shall not be altered by more than 5°F above the natural temperature. At no time shall these WARM-designated waters be raised above 80°F as a result of waste discharges.”
- d. **Total Dissolved Solids (TDS), Chloride, Sulfate, and Boron.** The discharge effluent limitations set forth in this permit for boron, chloride, sulfates, and TDS are equal to the water quality objectives for minerals in Table 3-10 of the Basin Plan.
- e. **Total Inorganic Nitrogen (NO₂ +NO₃ as N).** Total inorganic nitrogen is the sum of Nitrate-nitrogen and Nitrite-nitrogen. The effluent limitation of 8 mg/L for Discharge Points 001, 002, 011, and 018, is based on the Los Angeles River Nutrients TMDL. The effluent limitation of 10 mg/L for Discharge Points 003 to 007, 009, and 010 is based on the Basin Plan Table 3-10 for the Calleguas Creek Watershed, Arroyo Simi and tributaries-upstream Madera Road. The Calleguas Creek Nitrogen Compounds and Related Effects TMDL did not establish WLAs for nitrogen compounds for stormwater NPDES discharges to the Calleguas Creek Watershed. Therefore, this permit carries over effluent limitations of 10 mg/L for nitrate plus nitrite as nitrogen consistent with the Basin Plan.
- f. **Ammonia.** Ammonia is a pollutant routinely found in wastewater effluent of Publicly Owned Treatment Works (POTWs), in landfill-leachate, and in run-off from agricultural fields where commercial fertilizers and animal manure are

applied. Ammonia exists in two forms – un-ionized ammonia (NH_3) and the ammonium ion (NH_4^+). They are both toxic, but the neutral, un-ionized ammonia species (NH_3) is much more toxic, because it is able to diffuse across the epithelial membranes of aquatic organisms much more readily than the charged ammonium ion. The form of ammonia is primarily a function of pH, but it is also affected by temperature and other factors. Additional impacts can also occur as the oxidation of ammonia lowers the dissolved oxygen content of the water, further stressing aquatic organisms. Oxidation of ammonia to nitrate may lead to groundwater impacts in areas of recharge. Ammonia effluent limitations are based on the Los Angeles River Nutrients TMDL and water quality objectives in Chapter 3 of the Basin Plan.

- g. **Bacteria.** This Order implements the applicable numeric water quality objectives for bacteria included in the Los Angeles River Bacteria TMDL (for discharges to Bell Creek and Dayton Canyon) and the Bacteria Provisions (for discharges to Arroyo Simi). Implementation language in the Los Angeles River Bacteria TMDL discusses potential implementation of WLAs as receiving water limitations. Therefore, this Order implements the applicable numeric water quality objectives and WLAs for bacteria as receiving water limitations. Effluent and receiving water monitoring for bacteria are established consistent with the requirements included in the Los Angeles River Bacteria TMDL and the Bacteria Provisions.
- h. **Radioactivity.** Radioactive substances are generally present in natural waters in extremely low concentrations. Mining or industrial activities increase the amount of radioactive substances in waters to levels that are harmful to aquatic life, wildlife, or humans. The existing effluent limitations for radioactivity reads: “Radioactivity of the wastes discharged shall not exceed the limitations specified in Title 22, Chapter 15, Article 5, Sections 64442 and 64443, of the CCR, or subsequent revisions,” which are based on the Basin Plan incorporation of Title 22, CCR, *Drinking Water Standards*, by reference, to protect the surface water MUN beneficial use. Based on the current beneficial uses, a limit for radioactivity is unnecessary unless the discharge is to a reach used for groundwater recharge (GWR), where Title 22-based standards also apply. Because the groundwater is designated with the GWR beneficial use, this Order retains the limitation for radioactivity to protect the GWR beneficial use.
- i. **Perchlorate.** Perchlorate and its salts are used in, but not limited to, solid propellant for rockets, missiles, and fireworks. The defense and aerospace industries purchase more than 90 percent of all the perchlorate manufactured. Perchlorate has historically been used at SSFL and thus is considered a chemical of concern at the site. Monitoring data collected during the term of the previous permit indicates that perchlorate was present in the stormwater runoff in Happy Valley and it has been detected in some of the groundwater wells utilized in the cleanup operations ongoing with DTSC oversight. Perchlorate can interfere with iodide uptake by the thyroid gland; this can result in a decrease in the production of thyroid hormones, which are needed

for prenatal and postnatal growth and development, as well as for normal body metabolism. Neither the CTR, NTR, or the Basin Plan has requirements identified for perchlorate. Section 64431 of Title 22 of the California Code of Regulations was amended in 2007 to include a primary MCL for perchlorate of 6 µg/L. That MCL has been included as an effluent limit for perchlorate in this Order to protect the GWR beneficial use.

4.3.3. CTR and SIP

The CTR and the SIP specify numeric objectives for priority toxic substances and the procedures whereby these objectives are to be implemented. The procedures include those used to conduct reasonable potential analysis (RPA) to determine the need for effluent limitations for priority toxic pollutants. The Technical Support Document (TSD) also specifies procedures to conduct reasonable potential analyses.

Priority toxic pollutant water quality criteria in the CTR are applicable to the receiving waters (Bell Creek, Dayton Canyon Creek, and Arroyo Simi). The CTR aquatic life criteria for freshwater or human health for consumption of organisms, whichever are more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of Bell Creek, Dayton Canyon Creek, and Arroyo Simi.

Some water quality criteria are hardness dependent. The Discharger provided hardness data for the receiving water during the term of the previous permit. The data indicates that the 100 mg/L as CaCO₃ for hardness continues to be representative of the discharge from the Facility. The 100 mg/L hardness has been used to derive the applicable water quality criteria unless a TMDL specified a different hardness value.

4.3.4. Title 22 Maximum Contaminant Levels (MCLs)

Groundwater recharge of the underlying groundwater basin is also a beneficial use for Bell Creek, Dayton Canyon Creek and Arroyo Simi (GWR). The GWR beneficial use is protected using the Title 22 MCLs to protect drinking water in the groundwater basin, which has a MUN beneficial use.

Tables F-10 and F-11 summarize the applicable water quality criteria/objectives for priority pollutants reported in detectable concentrations in the discharges or in receiving water based on data submitted to the Los Angeles Water Board. These criteria were used to complete the RPA for this Order.

Table F-10. Applicable Water Quality Criteria/Objectives

CTR No.	Constituent	Selected Criteria (µg/L)	Freshwater Acute (µg/L)	Freshwater Chronic (µg/L)	Human Health Consumption of Organisms (µg/L)	MCLs (µg/L)	Notes
1	Antimony	6	--	--	4,300	6	a
2	Arsenic	10	340	150	--	10	a
3	Beryllium	4	--	--	--	4	a

CTR No.	Constituent	Selected Criteria (µg/L)	Freshwater Acute (µg/L)	Freshwater Chronic (µg/L)	Human Health Consumption of Organisms (µg/L)	MCLs (µg/L)	Notes
4	Cadmium	2.5	4.5	2.5	--	5	
5a	Chromium (III)	207	1737	207	--	--	
5b	Chromium (VI)	11.4	16.3	11.4	--	50	
6	Copper	9.3	14	9.3	--	--	
7	Lead	3.2	82	3.2	--	--	
8	Mercury	0.012	--	--	0.012	2	
9	Nickel	52	469	52	4,600	100	
10	Selenium	5.0	20	5	--	50	
11	Silver	4.1	4.1	--	--	--	
12	Thallium	2	--	--	6.3	2	a
13	Zinc	120	120	120	--	--	
14	Cyanide	5.2	22	5.2	220,000	150	
16	TCDD Equivalents	1.4E-08	--	--	1.4E-08	3.0E-05	
29	1,2-Dichlorethane	0.5	--	--	--	0.5	
30	1,1-Dichloroethylene	3.2	--	--	3.2	6	
43	Trichloroethylene	5	--	--	81	5	a
53	Pentachlorophenol	1	5	4	8.2	1	a
55	2,4,6-Trichlorophenol	6.5	--	--	6.5	--	
59	Benzidine	0.00054	--	--	0.00054	--	
68	Bis(2-ethylhexyl)phthalate	4	--	--	5.9	4	a
78	3,3'-Dichlorobenzidine	0.077	--	--	0.077	--	
82	2,4-Dinitrotoluene	9.1	--	--	9.1	--	
92	Indeno(1,2,3-cd) Pyrene	0.049	--	--	0.049	--	
96	N-Nitrosodimethylamine	8.1	--	--	8.1	--	
103	Alpha-BHC	0.013	--	--	0.013	--	
109	4,4'-DDE	0.00059	--	--	0.00059	--	
117	Heptachlor	0.00021	0.52	0.0038	0.00021	0.01	
	Aluminum	1000	--	--	--	1000	a
	Perchlorate	6	--	--	--	6	b
	Radioactivity Gross Alpha (pCi/L)	15	--	--	--	15 (pCi/L)	a
	Radioactivity Gross Beta (millirem/yr)	4	--	--	--	4 (millirem/yr)	a

CTR No.	Constituent	Selected Criteria (µg/L)	Freshwater Acute (µg/L)	Freshwater Chronic (µg/L)	Human Health Consumption of Organisms (µg/L)	MCLs (µg/L)	Notes
	Combined Radium-226 & Radium-228 (pCi/L)	5	--	--	--	5 (pCi/L)	a
	Tritium (pCi/L)	20,000	--	--	--	20,000 (pCi/L)	a
	Strontium-90 (pCi/L)	8	--	--	--	8 (pCi/L)	a
	Uranium (pCi/L)	20	--	--	--	20 (pCi/L)	a

Footnotes for Table F-10

- a. Basin Plan-Title 22 MCLs.
b. CA MCL.

End of Footnotes for Table F-10

For the purpose of determining compliance with effluent limits, this Order requires the Dischargers to calculate and report dioxin-TEQ using the following formula, where the TEFs and BEFs are as listed in Table F-11:

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

C_x = concentration of dioxin or furan congener x

TEF_x = TEF for congener x

BEF_x = BEF for congener x

Table F-11. Toxicity Equivalency Factors and Bioaccumulation Equivalency Factors

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6

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

4.3.4. Determining the Need for WQBELs.

a. Reasonable Potential Analysis (RPA) Methodology.

In accordance with section 1.3 of the SIP, the Los Angeles 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. If there is an applicable TMDL-based WLA, then WQBELs are developed using the WLA pursuant to 40 CFR section 122.44(d)(1)(vii)(B). Otherwise, the Los Angeles 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 criteria and objectives (C) contained in the CTR, NTR, and/or the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above an applicable state or federal water quality standard in the receiving water, numeric WQBELs are required.

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

- 1) Trigger 1 – if $MEC \geq C$, a limit is needed.
- 2) Trigger 2 – If the background concentration $B > C$ and the pollutant is detected in the effluent, a limit is needed.
- 3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, or other applicable factors indicate that a WQBEL is required.

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

There is a robust data set available for the SSFL site from NPDES permit sampling, the Interim Source Removal Action (ISRA), and from the RCRA assessment and cleanup that is progressing under DTSC's regulatory oversight. The data available from the RCRA assessment and cleanup and ISRA activity was used to make a decision based on the discharge type (Trigger 3) regarding the retention of limits for pollutants that have not been detected recently but have been onsite or detected in the soils or sediment on the site at elevated concentrations. The statistical RPA was completed for all priority pollutants detected from April 2015 to March 2023. As discussed earlier in this Fact Sheet, the Woolsey Fire occurred in December 2018, which caused significant damage to the Facility including loss of vegetation and damage or destruction to many structural BMPs. The ensuing erosion and sediment flows led to several effluent limitation exceedances during the 4th quarter of 2018 through 1st quarter of 2019. The "post-fire" MEC values were separated from the data sets in Tables F-3 through F-5, however, for the exercise of conducting RPA, these results were included for Tables F-12 through F-14. As a result, several new constituents triggered reasonable potential. In this Order, new effluent limitations are established for these constituents that triggered reasonable potential. Attachment H includes a summary of the RPA and associated effluent limit calculations. The following tables summarize the results of the RPA for each group of discharge points evaluated. The Facility is at the headwaters of the Los Angeles and Calleguas Creek, thus, no ambient background (B) concentration is included.

**Table F-12. Summary of Reasonable Potential Analysis
(Discharge Points 001, 002, 011, and 018)**

CTR No.	Constituent	Applicable Water Quality Criteria (C) (µg/L)	Max Effluent Conc. (MEC) (µg/L)	Maximum Receiving H ₂ O Conc. (B) (µg/L)	RPA Result - Need Limit?	Reason	Notes
1	Antimony	6.0	0.82	--	Yes	Limit based on Previous Permit	a
2	Arsenic	10.0	17	--	Yes	MEC>=C	a and c
3	Beryllium	4.0	1.80	--	Yes	Limit based on Previous Permit	a
4	Cadmium	2.5	1.60	--	Yes	TMDL	a
5b	Chromium (VI)	11.4	1.1	--	Yes	Limit based on Previous Permit	a
6	Copper	9.3	52	--	Yes	TMDL	a and c
7	Lead	3.2	88	--	Yes	MEC>=C	a and c
8	Mercury	0.051	< 0.1	--	Yes	Limit based on Previous Permit	a and b

CTR No.	Constituent	Applicable Water Quality Criteria (C) (µg/L)	Max Effluent Conc. (MEC) (µg/L)	Maximum Receiving H ₂ O Conc. (B) (µg/L)	RPA Result - Need Limit?	Reason	Notes
9	Nickel	52.2	28	--	Yes	Limit based on Previous Permit	a
10	Selenium	5.0	11	--	Yes	MEC>=C	a and c
11	Silver	4.1	0.28	--	Yes	Limit based on Previous Permit	a
12	Thallium	2.0	< 1	--	Yes	Limit based on Previous Permit	a and b
13	Zinc	120	430	--	Yes	TMDL	a and c
14	Cyanide	5.2	6.10	--	Yes	MEC>=C	a and c
16	TCDD Equivalents	1.4E-08	2.6E-07	--	Yes	MEC>=C	a
29	1,2-Dichloroethane	0.5	< 0.5	--	Yes	Limit based on Previous Permit	a and b
30	1,1-Dichloroethylene	3.2	< 0.5	--	Yes	Limit based on Previous Permit	a and b
43	Trichloroethylene	5.0	1.6	--	Yes	Limit based on Previous Permit	a
53	Pentachlorophenol	1.0	1.3	--	Yes	MEC>=C	a
55	2,4,6-Trichlorophenol	6.5	< various	--	Yes	Limit based on Previous Permit	a and b
59	Benzidine	0.00054	5.49	--	Yes	MEC>=C	a and c
68	Bis(2-Ethylhexyl) Phthalate	4.0	3.9	--	Yes	Limit based on Previous Permit	a
78	3,3'-Dichlorobenzidine	0.077	1.10	--	Yes	MEC>=C	a and c
82	2,4-Dinitrotoluene	9.1	0.12	--	Yes	Limit based on Previous Permit	a
92	Indeno(1,2,3-cd) Pyrene	0.049	0.14	--	Yes	MEC>=C	a
96	N-Nitrosodimethylamine	8.1	< various	--	Yes	Limit based on Previous Permit	a and b
103	alpha-BHC	0.013	0.0041	--	Yes	Limit based on Previous Permit	a
109	4,4'-DDE	0.0012	0.0035	--	Yes <u>Note d</u>	MEC>=C	a and d
117	Heptachlor	0.00021	0.0012	--	Yes	MEC>=C	a
	Aluminum	1,000	1,000	--	Yes	MEC>=C	a
	Manganese	50	170	--	Yes	MEC>=C	a
	Perchlorate	6.0	0.95	--	Yes	Limit based on Previous Permit	a

CTR No.	Constituent	Applicable Water Quality Criteria (C) (µg/L)	Max Effluent Conc. (MEC) (µg/L)	Maximum Receiving H ₂ O Conc. (B) (µg/L)	RPA Result - Need Limit?	Reason	Notes
	Radioactivity – Gross Alpha (pCi/L)	15	60.7	--	Yes	Basin Plan	a and c
	Radioactivity – Gross Beta (pCi/L)	4 millirem/yr	40.7	--	Yes	Title 22/MCLs	a
	Combined Radium 226 & Radium 228 (pCi/L)	5	3.16	--	Yes	Basin Plan	a
	Tritium (pCi/L)	20,000	< 500	--	Yes	Basin Plan	a and b
	Strontium-90 (pCi/L)	8	1.25	--	Yes	Basin Plan	a
	Uranium (pCi/L)	20	3.65	--	Yes	Basin Plan	a

Footnotes for Table F-12

- a. Discharge Points 001, 002, 011, and 018 are at the headwaters. RSW-001 is satisfied by sampling from EFF-001, EFF-002, EFF-011, or EFF-018. As such, there is no upstream receiving water for the purposes of background concentration for these Discharge Points. The background (B) is denoted as “--” to indicate that no data is available.
- b. No detected result; data reported at less than the laboratory reporting limit (e.g., < RL).
- c. Reasonable potential triggered by “post-fire” data.
- d. Climate change impacts are increasing the frequency and intensity of fires; thus, a new effluent limitation is justified where reasonable potential is triggered.

End of Footnotes for Table F-12

**Table F-13. Summary of Reasonable Potential Analysis
(Discharge Points 003, 004, 005, 006, 007, 009, and 010)**

CTR No.	Constituent	Applicable Water Quality Criteria (C) (µg/L)	Max Effluent Conc. (MEC) (µg/L)	Maximum Receiving H ₂ O Conc. (B) (µg/L)	RPA Result - Need Limit?	Reason	Notes
1	Antimony	6.0	2.3	0.95	Yes	Limit based on Previous Permit	--
4	Cadmium	2.5	0.15	0.32	Yes	CTR, Limit based on Previous Permit	--
6	Copper	9.3	15	9.9	Yes	TMDL	--
7	Lead	3.2	9.5	2.7	Yes	MEC>=C	--
8	Mercury	1.2E-05	0.11	0.12	Yes	MP	--
9	Nickel	52.2	170	8.2	Yes	MEC>=C	a
12	Thallium	2.0	0.14	< 1	Yes	Limit based on Previous Permit	--

CTR No.	Constituent	Applicable Water Quality Criteria (C) (µg/L)	Max Effluent Conc. (MEC) (µg/L)	Maximum Receiving H ₂ O Conc. (B) (µg/L)	RPA Result - Need Limit?	Reason	Notes
13	Zinc	120	41	45	Yes	MEC<C & B<=C	--
14	Cyanide	9.5	< 5	<5	Yes	Limit based on Previous Permit	b
15	Asbestos (million fibers/L)	7	75	< 5	No	Result reported in error	c
16	2,3,7,8 TCDD	1.4E-08	2.3E-07	3.42E-08	Yes	MEC>=C	--
53	Pentachlorophenol	1.0	1.08	0.8	Yes	MEC>=C	b <u>and d</u>
68	Bis(2-Ethylhexyl)Phthalate	4.0	10.6	< various	Yes	MEC>=C	--
	Aluminum	1,000	3,600	No data	Yes	MEC>=C	--
	Perchlorate	6.0	< 4	No data	Yes	Limit based on Previous Permit	--
	Radioactivity – Gross Alpha (pCi/L)	15	4.9	No data	Yes	Basin Plan	--
	Radioactivity – Gross Beta (pCi/L)	4 millirem/yr	7.74	No data	Yes	Title 22/MCLs	--
	Combined Radium 226 & Radium 228 (pCi/L)	5	1.53	No data	Yes	Basin Plan	--
	Tritium (pCi/L)	20,000	623	No data	Yes	Basin Plan	--
	Strontium-90 (pCi/L)	8	0.719	No data	Yes	Basin Plan	--
	Uranium (pCi/L)	20	1.85	No data	Yes	Basin Plan	--

Footnotes for Table F-13

- Reasonable potential triggered by “post-fire” data.
- No detected result; data reported at less than the laboratory reporting limit (e.g., < RL)
- The reported asbestos value of 75 million fibers/L (MFL) detected was incorrect. The method associated with the MCL requires measurement >10 µm/L, which the Discharger verified data of 1 MFL, less than the 7 MFL water quality criteria, whereas the reported value was associated with a finer detection limit of >0.5 µm/L. There is no reasonable potential based on the corrected data. However, as noted in the MRP and section 2.2 of this Fact Sheet, monitoring will be required at Outfalls 003-007, 009, and 010, based on history of construction materials and debris in the Building 056 Landfill.
- Climate change impacts are increasing the frequency and intensity of fires; thus, a new effluent limitation is justified where reasonable potential is triggered.

End of Footnotes for Table F-13

Table F-14. Summary of Reasonable Potential Analysis (Discharge Point 008)

CTR No.	Constituent	Applicable Water Quality Criteria (C) (µg/L)	Max Effluent Conc. (MEC) (µg/L)	Maximum Receiving Water Conc. (B) (µg/L)	RPA Result - Need Limit?	Reason	Notes
1	Antimony	6.0	2.5	--	No	MEC<C	a
2	Arsenic	10.0	15.0	--	Yes	MEC>=C	a
4	Cadmium	2.5	0.9	--	Yes	TMDL	a
6	Copper	9.3	16	--	Yes	TMDL	a and b
7	Lead	3.2	54	--	Yes	TMDL	a and b
8	Mercury	1.2E-05	0.16	--	Yes	MP	a
9	Nickel	52.2	18	--	No	MEC<C	a
10	Selenium	5.0	2.1	--	No	MEC<C	a
12	Thallium	2.0	0.14	--	No	MEC<C	a
13	Zinc	120	120	--	Yes	TMDL	a and b
14	Cyanide	5.2	15	--	Yes	MEC>=C	a and b
16	TCDD Equivalents	1.4E-08	2.4E-10	--	No	MEC<C	a
59	Benzidine	0.00054	5.46	--	Yes	MEC>=C	a, <u>b</u> and <u>c</u>
78	3,3'-Dichlorobenzidine	0.077	1.09	--	Yes	MEC>=C	a, <u>b</u> and <u>c</u>
109	4,4'-DDE	0.00059	0.0033	--	Yes	MEC>=C	a, <u>b</u> and <u>c</u>
	Aluminum (mg/L)	1.0	13.0	--	Yes	MEC>=C	a and b
	Boron (mg/L)	1.0	0.089	--	No	MEC<C	a
	Chloride (mg/L)	150	12	--	No	MEC<C	a
	Fluoride (mg/L)	2.0	0.3	--	No	MEC<C	a
	Oil & Grease (mg/L)	15	3.2	--	No	MEC<C	a
	Perchlorate	6.0	2.9	--	No	MEC<C	a
	Sulfate (mg/L)	300	15	--	No	MEC<C	a
	Radioactivity – Gross Alpha (pCi/L)	15	23.2	--	Yes	Basin Plan	a and b
	Radioactivity – Gross Beta (pCi/L)	4 millirem/yr	18.9	--	Yes	Title 22/MCLs	a
	Combined Radium 226 & Radium 228 (pCi/L)	5	0.583	--	Yes	Basin Plan	a
	Tritium (pCi/L)	20,000	< 500	--	Yes	Basin Plan	a and <u>ed</u>

CTR No.	Constituent	Applicable Water Quality Criteria (C) (µg/L)	Max Effluent Conc. (MEC) (µg/L)	Maximum Receiving Water Conc. (B) (µg/L)	RPA Result - Need Limit?	Reason	Notes
	Strontium-90 (pCi/L)	8	0.586	--	Yes	Basin Plan	a
	Uranium (pCi/L)	20	0.512	--	Yes	Basin Plan	a

Footnotes for Table F-14

- a. Discharge Point 008 is at the headwaters, and no ambient background concentration (B) is given.
- b. Reasonable potential triggered by "post-fire" data.
- c. Climate change impacts are increasing the frequency and intensity of fires; thus, a new effluent limitation is justified where reasonable potential is triggered.
- d. No detected result; data reported at less than the laboratory reporting limit (e.g., < RL)

End of Footnotes for Table F-14

4.3.5. WQBEL Calculations

- a. If reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in Section 1.4 of the SIP. These procedures include:
 - i. If applicable and available, use of the WLA established as part of a TMDL.
 - ii. Use of a steady-state model to derive MDELs and AMELs.
 - iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Los Angeles Water Board.
- b. In this Order, no dilution credit is allowed. However, in accordance with the reopener provision in section 6.3.1.e. in the Order, this Order may be reopened upon the submission by the Discharger of adequate information to establish appropriate dilution credits or a mixing zone, as determined by the Los Angeles Water Board.
- c. **WQBELs Calculation Example**

The process for developing these limits is in accordance with Section 1.4 of the SIP. Two sets of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL are selected as the WQBEL. Using cyanide as an example, the WQBELs were calculated using the process described below:

Calculation of aquatic life AMEL and MDEL

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

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

$$ECA = C \quad \text{when } C \leq B,$$

Where: C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators.

D = The dilution credit, and

B = The ambient background concentration

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

$$ECA = C$$

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

For cyanide, the applicable ECAs are:

$$ECA_{\text{acute}} = 22 \mu\text{g/L}$$

$$ECA_{\text{chronic}} = 5.2 \mu\text{g/L}$$

$$ECA_{\text{human health}} = 220,000 \mu\text{g/L}$$

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 are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$$LTA_{\text{acute}} = ECA_{\text{acute}} \times \text{Multiplier}_{\text{acute}}$$

$$LTA_{\text{chronic}} = ECA_{\text{chronic}} \times \text{Multiplier}_{\text{chronic}}$$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6. If the data set is greater than 10 samples, and at least 20% of the samples in the data set are reported as detected, the CV shall be equal to the standard deviation of the data set divided by the average of the data set.

For cyanide, the following data were used to develop the acute 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):

Number of Samples	No. of Non-Detects (% of Total)	CV	ECA Multiplier _{acute}	ECA Multiplier _{chronic}
63	> 80%	0.6	0.321	0.527

$$LTA_{\text{acute}} = 22 \mu\text{g/L} \times 0.321 = 7.06 \mu\text{g/L}$$

$$LTA_{\text{chronic}} = 5.2 \mu\text{g/L} \times 0.527 = 2.74 \mu\text{g/L}$$

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

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

For cyanide, the most limiting LTA was the LTA_{chronic}

$$LTA_{\text{cyanide}} = LTA_{\text{chronic}} = 2.74 \mu\text{g/L}$$

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

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

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

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

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

Number of Samples per Month	CV	Multiplier _{MDEL 99}	Multiplier _{AMEL 95}
4	0.6	3.11	1.55

$$AMEL_{\text{aquatic life}} = 2.74 \mu\text{g/L} \times 1.55 = 4.26 \mu\text{g/L}$$

$$MDEL_{\text{aquatic life}} = 2.74 \mu\text{g/L} \times 3.11 = 8.54 \mu\text{g/L}$$

Calculation of human health AMEL and MDEL

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

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

For cyanide:

$$AMEL_{\text{human health}} = 220,000 \mu\text{g/L}$$

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

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

For cyanide, the following data were used to develop the MDEL_{human health}:

Number of Samples per Month	CV	Multiplier _{MDEL 99}	Multiplier _{AMEL 95}	Ratio
4	0.6	3.11	1.55	2.01

For cyanide:

$$\text{MDEL}_{\text{human health}} = 220,000 \mu\text{g/L} \times 2.01 = 441,362 \mu\text{g/L}$$

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

AMEL _{aquatic life}	MDEL _{aquatic life}	AMEL _{human health}	MDEL _{human health}
4.3 $\mu\text{g/L}$	8.5 $\mu\text{g/L}$	220,000 $\mu\text{g/L}$	441,362 $\mu\text{g/L}$

The lowest (most restrictive) effluent limits for cyanide are based on aquatic toxicity and were incorporated into this Order.

4.3.6. 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/or growth. A chemical at a low concentration can have chronic effects but no acute effects until it gets to the higher concentrations.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes, but is not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The chronic toxicity effluent limitations in this Order are as stringent as necessary to protect the Basin Plan Water Quality Objective for chronic toxicity.

Order No. R4-2015-0033 included chronic toxicity effluent limitations expressed as “Pass” for the median monthly summary results and “Pass” and “<50% Effect” for each maximum daily individual result. Since the discharges from the Facility are now only stormwater runoff, the median monthly limitation is no longer

applicable. The maximum daily chronic toxicity effluent limitations are as stringent as necessary to protect the narrative Basin Plan Water Quality Objective for chronic toxicity. Those limitations are also consistent with the chronic toxicity WLA of 1.0 TUC and the assumptions of the Calleguas Creek Toxicity TMDL which went into effect on March 24, 2006, and the implementation language which reads as follows: "The toxicity WLAs will be implemented in accordance with USEPA, State Water Board and Los Angeles Water Board resolutions, guidance and policy at the time of permit issuance or renewal."

The discharge is subject to determination of "Pass" or "Fail" and "Percent Effect" from a single-effluent concentration chronic toxicity test at the discharge IWC using the Test of Significant Toxicity (TST) statistical approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1, and rejecting the null hypothesis in accordance with the TST statistical approach described in Section III.B.3. of the Toxicity Provisions. The TST's null hypothesis for chronic toxicity is:

H_0 : Mean response (IWC in % effluent) \leq 0.75 mean response (Control).

Results obtained from the 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". Chronic toxicity results are expressed as "Pass" or "Fail" and "% Effect". Since no dilution is allowed, the chronic toxicity IWC is 100 percent effluent.

The Facility demonstrates reasonable potential for chronic toxicity. Monitoring data for chronic toxicity tests reported between April 2015 and March 2023 indicated two "Fail" results in 2017 (Discharge Point 002) and 2019 (Discharge Point 009) for chronic toxicity. This Order also contains a reopener to allow the Los Angeles Water Board to modify the permit in the future, if necessary, to make it consistent with any new policy, plan, law, or regulation.

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

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

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

Where:

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

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

Flow rate = discharge flow rate (MGD)

Mass-based effluent limitations applicable to Discharge Points 001, 002, 011, and 018 are based on a maximum flow of 117.83 MGD; Discharge Points 003, 004, 005, 006, 007, 009, and 010 are based on a maximum flow of 64.33 MGD; and Discharge Point 008 are based on a maximum flow 7.21 MGD.

A summary of the final WQBELs in this Order is provided below for each outfall group.

Table F-15. Summary of Final WQBELs at Outfalls 001, 002, 011, and 018

Parameters	Units	Maximum Daily Effluent Limitations	Notes
pH	standard units	6.5/8.5	a
Aluminum	mg/L	1.0	
Barium	mg/L	1.0	
Chloride	mg/L	150	
Chlorine, Total Residual	mg/L	0.1	
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%	b
Fluoride	mg/L	1.6	
Detergents (as MBAS)	mg/L	0.5	
Ammonia – N	mg/L	10.1	
Manganese	µg/L	50	
Nitrate – N	mg/L	8	
Nitrite – N	mg/L	1	
Nitrate + Nitrite - N	mg/L	8	
Perchlorate	µg/L	6.0	
Sulfate	mg/L	300	
Temperature	degrees °F	80	c
Total Dissolved Solids	mg/L	950	
Radioactivity – Gross Alpha	pCi/L	15	
Radioactivity – Gross Beta	millirem/year	4	
Combined Radium-226 & Radium-228	pCi/L	5.0	
Tritium	pCi/L	20,000	
Strontium-90	pCi/L	8.0	
Uranium	pCi/L	20	
Antimony, TR	µg/L	6.0	
Arsenic, TR	µg/L	10.0	
Beryllium, TR	µg/L	4.0	
Cadmium, TR	µg/L	3.1	d

Parameters	Units	Maximum Daily Effluent Limitations	Notes
Chromium (VI), TR	µg/L	16	
Copper, TR	µg/L	67.5	d
Lead, TR	µg/L	5.2	d
Mercury, TR	µg/L	0.1	
Nickel, TR	µg/L	94	
Selenium	µg/L	8.2	
Silver, TR	µg/L	4.1	
Thallium, TR	µg/L	2.0	
Zinc, TR	µg/L	159	d
Cyanide	µg/L	8.5	
TCDD Equivalents	µg/L	2.8E-08	
1,2-Dichloroethane	µg/L	0.5	
1,1-Dichlorethylene	µg/L	6.0	
Trichloroethylene	µg/L	5	
Pentachlorophenol	µg/L	1	
2,4,6-Trichlorophenol	µg/L	13	
Benzidine	µg/L	0.00054	
Bis(2-ethylhexyl)Phthalate	µg/L	4	
3,3'-Dichlorobenzidine		0.077	
2,4-Dinitrotoluene	µg/L	18	
Indeno(1,2,3-cd) Pyrene	µg/L	0.1	
N-Nitrosodimethylamine	µg/L	16	
alpha-BHC	µg/L	0.03	
4,4'-DDE	µg/L	0.00059	
Heptachlor	µg/L	0.00042	

Footnotes for Table F-15

- Instantaneous minimum and maximum effluent limits.
- Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL).
- Instantaneous maximum effluent limit.
- The effluent limitations for these parameters are equal to their waste load allocations as set forth in the Los Angeles River Metals TMDL.

End of Footnotes for Table F-15

Table F-16. Summary of Final WQBELs Effluent Limitations at Outfalls 003, 004, 005, 006, 007, 009, 010

Parameters	Units	Maximum Daily Effluent Limitations	Notes
pH	standard units	6.5/8.5	a
Aluminum	mg/L	1.0	
Boron	mg/L	1.0	
Chloride	mg/L	150	

Parameters	Units	Maximum Daily Effluent Limitations	Notes
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%	b
Fluoride	mg/L	1.6	
Nitrate + Nitrite – N	mg/L	10	
Perchlorate	µg/L	6.0	
Sulfate	mg/L	250	
Temperature	degrees °F	80	c
Total Dissolved Solids	mg/L	850	
Radioactivity – Gross Alpha	pCi/L	15	
Radioactivity – Gross Beta	millirem/yr	4	
Combined Radium-226 & Radium-228	pCi/L	5.0	
Tritium	pCi/L	20,000	
Strontium-90	pCi/L	8.0	
Uranium	pCi/L	20	
Antimony, TR	µg/L	6.0	
Cadmium, TR	µg/L	4.0	
Copper, TR	µg/L	31	d
Lead, TR	µg/L	5.2	
Mercury, TR	µg/L	0.024	
Nickel, TR	µg/L	100	e
Thallium, TR	µg/L	2	
Zinc, TR	µg/L	120	
Cyanide	µg/L	9.5	
TCDD Equivalents	µg/L	2.8E-08	
Pentachlorophenol	µg/L	1.0	
Bis(2-ethylhexyl)Phthalate	µg/L	4.0	

Footnotes for Table F-16

- Instantaneous minimum and maximum effluent limits.
- Report “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL).
- Instantaneous maximum effluent limit.
- The effluent limitations for these parameters are equal to their waste load allocations as set forth in the Calleguas Creek Metals TMDL.
- The effluent limitation is based on the primary MCL to ensure protection of the Groundwater Recharge (GWR) beneficial use.

End of Footnotes for Table F-16

Table F-17. Summary of Final WQBELs Effluent Limitations at Outfalls 008

Parameters	Units	Maximum Daily Effluent Limitations	Notes
pH	standard units	6.5/8.5	a

Parameters	Units	Maximum Daily Effluent Limitations	Notes
Aluminum	mg/L	1.0	
Boron	mg/L	1.0	
Chloride	mg/L	150	
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%	b
Fluoride	mg/L	1.6	
Ammonia – N	mg/L	10.1	
Nitrate – N	mg/L	8	
Nitrite – N	mg/L	1	
Nitrate + Nitrite - N	mg/L	8	
Perchlorate	µg/L	6.0	
Sulfate	mg/L	300	
Temperature	degrees °F	80	c
Total Dissolved Solids	mg/L	950	
Radioactivity – Gross Alpha	pCi/L	15	
Radioactivity – Gross Beta	millirem/yr	4	
Combined Radium-226 & Radium-228	pCi/L	5.0	
Tritium	pCi/L	20,000	
Strontium-90	pCi/L	8.0	
Uranium	pCi/L	20	
Arsenic, TR	µg/L	10.0	
Cadmium, TR	µg/L	3.1	d
Copper, TR	µg/L	67.5	d
Lead, TR	µg/L	5.2	
Mercury	µg/L	0.024	
Zinc, TR	µg/L	159	d
Cyanide	µg/L	9.5	
Benzidine	µg/L	0.00054	
3,3'-Dichlorobenzidine	µg/L	0.077	
4,4'-DDE	µg/L	0.00059	

Footnotes for Table F-17

- Instantaneous minimum and maximum effluent limits.
- Report “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL).
- Instantaneous maximum effluent limit.
- The effluent limitations for these parameters are equal to their waste load allocations as set forth in the Los Angeles River Metals TMDL.

End of Footnotes for Table F-17

4.4. Final Effluent Limitation Considerations

4.4.1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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 permits, with some exceptions where limitations may be relaxed. In general, the effluent limitations in the Order are at least as stringent as the effluent limitations in Order No. R4-2015-0033. However, certain effluent limitations in the Order are not identical to the effluent limitations in the previous NPDES permit because a new reasonable potential analysis (RPA) was performed; there have been changes at the facility to eliminate dry-weather discharges; new information is available; or there is a change in the manner of incorporation of the Los Angeles River Metals and Calleguas Creek Metals TMDLs (together, Metals TMDLs).

In Order R4-2015-0033, “benchmarks” referred to water quality value at Discharge Points 001 and 002, which triggered an evaluation or re-evaluation of BMPs to control or reduce pollutants in the discharge from those Outfalls. Since this Order newly establishes effluent limitations for Discharge Points 001 and 002 instead of benchmarks, anti-backsliding analysis is not required for changes made to Discharge Points 001 and 002.

The following are the effluent limits that were changed and subject to the anti-backsliding prohibition unless an exception is met³:

Constituent	Outfall ⁴ Location	Units	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Antimony, TR	008	µg/L	6.0	Remove limit	RPA
Cadmium, TR (dry weather)	008, 011, and 018	µg/L	4	Remove dry-weather limit only	Non-stormwater discharge prohibited
Copper, TR	008, 011, and 018	µg/L	14	67.5	TMDL
Copper, TR	003 to 007, 009, 010	µg/L	13	31	TMDL
Iron	011 and 018	mg/L	0.3	Remove limit	New information
Nickel, TR	003 to 007, 009 010	µg/L	86	100	Basin Plan
Nickel, TR	008	µg/L	86	Remove limit	RPA
Selenium, TR (dry weather)	011 and 018	µg/L	5	Remove dry weather limit only	Non-stormwater discharge prohibited
Selenium, TR	008	µg/L	5	Remove limit	RPA
<u>Sulfate</u>	<u>008</u>	<u>mg/L</u>	<u>300</u>	<u>Remove limit</u>	<u>RPA</u>

³ Non-stormwater discharges associated with Outfalls 019 and 020 are no longer authorized under this permit, any effluent limits associated with those Outfalls that were based on TBELs are no longer applicable.

⁴ The term “outfall” is used interchangeably with “discharge point”.

Constituent	Outfall ⁴ Location	Units	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
Total Suspended Solids (TSS)	011 and 018	mg/L	45	Remove limit	Non-stormwater discharge prohibited
Settleable Solids	011 and 018	ml/L	0.3	Remove limit	Non-stormwater discharge prohibited
Thallium, TR	008	µg/L	2.0	Remove limit	RPA
Zinc, TR	008, 011, and 018	µg/L	120	159	TMDL
TCDD Equivalents	008	µg/L	2.8E-08	Remove limit	RPA

What follows is a discussion of (1) the general law pertaining to anti-backsliding and (2) why the anti-backsliding provisions in the CWA and federal regulations do not bar the changes in the effluent limitations identified above.

General Principles of Law Governing Anti-Backsliding Analysis in this Order

As noted above, the CWA contains both statutory anti-backsliding provisions in section 402(o) and regulatory anti-backsliding provisions in 40 C.F.R. section 122.44(l). The CWA's statutory prohibition against backsliding applies under a narrow set of criteria specified in section 402(o). Section 402(o)(1) prohibits relaxing technology based effluent limitations originally established based on best professional judgment, when there is a newly revised effluent limitation guideline. Section 402(o)(1) also prohibits relaxing of WQBELs imposed pursuant to CWA sections 301(b)(1)(C) or 303(d) or (e). However, backsliding may be allowed for WQBELs such as the ones at issue here pursuant to one of six exceptions in CWA section 402(o)(2). Two are relevant here: (A) backsliding is allowed when material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation; and (B) information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance (the "New Information Exception") (402(o)(2)(A) and (B)(i), respectively).

Relaxation of WQBELs may also be allowed if such backsliding is consistent with the provisions in CWA section 303(d)(4). CWA section 303(d)(4) allows backsliding in the following circumstances. First, "CWA section 303(d)(4)(A) allows the establishment of a less stringent effluent limitation when the receiving water has been identified as not meeting applicable water quality standards (i.e., a nonattainment water)" if two conditions are met: (a), "the existing effluent limitation must have been based on a ...TMDL or other ...WLA established under CWA section 303;" and (b) "relaxation of the effluent limitation is only allowed if attainment of water quality standards will be ensured or the designated use not being attained is removed in accordance with the water quality standards

regulations.” (NPDES Permit Writers’ Manual, § 7.2.1.3 (U.S. EPA 2010); CWA section 303(d)(4)(A).)

Second, section 303(d)(4)(B), applies to “waters where the water quality equals or exceeds levels necessary to protect the designated use, or to otherwise meet applicable water quality standards (i.e., an attainment water). Under CWA section 303(d)(4)(B), a limitation based on a TMDL, WLA, other water quality standard, or any other permitting standard may only be relaxed where the action is consistent with state’s antidegradation policy.” (NPDES Permit Writers’ Manual, § 7.2.1.3 (U.S. EPA 2010); CWA section 303(d)(4)(B).)

For purposes of the following analysis, both sections 303(d)(4) and the exceptions in section 402(o)(2) are relevant because “U.S. EPA has consistently interpreted CWA section 402(o)(1) to allow relaxation of WQBELs and effluent limitations based on state standards if the relaxation is consistent with the provisions of CWA section 303(d)(4) or if ... [certain] of the exceptions in CWA section 402(o)(2)... [apply]. The two provisions [303(d)(4) and 402(o)(2)] constitute independent exceptions to the prohibition against relaxation of effluent limitations. If either is met, relaxation is permissible.” (NPDES Permit Writers’ Manual, § 7.2.1.3 (U.S. EPA 2010); CWA sections 303(d)(4) and 402(o)(2).) As set forth below, the changes to effluent limitations in the Order either do not constitute backsliding or satisfy one or more of the foregoing exceptions to anti-backsliding as described below.

Copper and Zinc at Discharge Points 008, 011, and 018 and Copper at Discharge Points 003 to 007, 009, 010: Effluent Limitations Relaxed Based on Direct Incorporation of TMDL WLAs Instead of Translation of TMDL WLAs Using SIP Procedures

Discharge Points 011, and 018, discharging to Bell Canyon Creek, and Discharge Point 008, discharging to Dayton Canyon Creek, discharge to tributaries to the Los Angeles River and are subject to the Los Angeles River Metals TMDL. Discharge Points 003 to 007, 009, and 010, discharge to Arroyo Simi, a tributary to Calleguas Creek and are subject to the Calleguas Creek Metals TMDL. The previous permit incorporated WQBELs for copper and zinc at Discharge Points 008, 011, and 018, and for copper at Discharge Points 003 to 007, 009, and 010 using calculations based on the SIP. The revised copper and zinc MDELs are incorporated directly equal to the TMDL WLAs.

The limits for copper and zinc at Discharge Points 008, 011, and 018 and for copper at Discharge Points 003 to 007, 009, 010 are subject to revision – and qualify for an exception to the prohibition on backsliding pursuant to 303(d)(4)(A). To explain, the Los Angeles River and Calleguas Creek are nonattainment waters – they are included on the 303(d) list of impaired water bodies, and TMDLs have been developed that include WLAs for copper and zinc. The new MDELs for copper and zinc are less stringent than those included in Order R4-2015-0033; however, they are a direct implementation of the WLAs from the Los Angeles River and Calleguas Creek Metals TMDLs (40 C.F.R. 122.44(d)(1)(vii)(B)). Therefore, the cumulative effect of the new MDELs will

assure attainment of water quality standards for copper and zinc and they comply with the exceptions to CWA section 303(d)(4)(A).

Nickel at Discharge Points 003 to 007, 009, 010: Effluent Limitations Relaxed Based on Protection of Basin Plan Beneficial Use of Groundwater Recharge

Discharge Points 003 to 007, 009, and 010, discharge to Arroyo Simi, a tributary to Calleguas Creek, and are subject to the Calleguas Creek Metals TMDL. The TMDL-based daily maximum effluent limit for nickel (958 µg/L), which was developed to protect aquatic life in the lower Calleguas Creek and Mugu Lagoon, is greater than the Title 22-based MCL limit of 100 µg/L. Under 303(d)(4)(A), an effluent limitation of 958 µg/L would be appropriate in most cases. However, in this case, Arroyo Simi has groundwater recharge as an intermittent beneficial use. Therefore, the effluent limitation implemented must be protective of both groundwater recharge and of the downstream aquatic life beneficial uses. Accordingly, the 100 µg/L effluent limitation, which is protective of the beneficial uses of Arroyo Simi and the groundwater basin below it, has been implemented for nickel instead of 86. (CWA section 303(d)(4)(A).)

Removal of TSS and Settleable Solids Limitations at Discharge Points 011 and 018; and, Removal of Dry-weather Cadmium Limitations at Discharge Points 008, 011 and 018, Removal of Dry-Weather Selenium Limitations at Discharge Points 011 and 018, and Removal of Selenium Limitations at Discharge Point 008 Based on Material Alteration and New Information

The MDELs for dry-weather for cadmium, selenium, TSS, and settleable solids have been removed based on new information that operation of the groundwater extraction treatment system (GETS) has been modified to fully re-inject treated groundwater back into the subsurface. Therefore, dry-weather discharges are prohibited under this Order.

The effluent limitations for TSS and settleable solids at Discharge Points 011 and 18 (discharging to Bell Creek) in the previous order only applied in dry weather. Since the GETS has been modified, that is a material and substantial alteration or addition to the permitted facility that occurred after permit issuance, which justifies the application of a less stringent effluent limitation because there are no longer dry-weather discharges. Additionally, this is new information that justifies removal of effluent limitations. Accordingly, these limits will be removed. (CWA § 402(o)(2)(A), (B)(i).)

There were two sets of effluent limitations for dry weather and wet weather for cadmium and selenium in the previous order based on the Los Angeles River Metals TMDL.

The TMDL only contained a wet-weather WLA for cadmium. The previous order included dry- and wet-weather limitations triggered by the presence of the TMDL. Now that there are no longer dry-weather discharges, the dry-weather effluent limitation for cadmium triggered by the TMDL is removed for Discharge Points 011, 018 (discharging to Bell Creek) and Discharge Point 008 (discharging to

Dayton Canyon). (CWA § 402(o)(2)(A), (B)(i).) The effluent limitation for wet-weather flow for cadmium will remain unchanged, however.

The TMDL only contained a dry-weather WLA for selenium. The previous Order included dry- and wet-weather limitations for Discharge Points 011 and 018 (discharging to Bell Creek), and wet-weather limitations for Discharge Point 008 (discharging to Dayton Canyon). Since dry-weather discharges are prohibited, the TMDL is no longer applicable to the Facility, and the dry-weather selenium limitations for Discharge Points 011 and 018 are removed. (CWA § 402(o)(2)(A), (B)(i).) The effluent limitation for wet-weather for selenium for Discharge Points 011 and 018 showed reasonable potential to cause or contribute to an excursion above a water quality standard, thus, the effluent limitation for selenium at Discharge Points 011 and 018 is retained in this Order, however, the wet-weather limits for selenium for Discharge Point 008 does not show reasonable potential, so it is removed.

Since the modification of the GETS operation occurred after the issuance of the prior permit in 2015, the dry-weather limits for cadmium and selenium have been removed based on the exception in CWA section 402(o)(2)(A), which allows backsliding when there are “material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation.” The removal of the wet-weather limit for selenium at Discharge Point 008 is allowed because there is new information that there is no reasonable potential for a discharge of selenium from Discharge Point 008, thereby assuring attainment of the water quality standard in a nonattainment water. (CWA § 402(o)(2)(B)(i); CWA section 303(d)(4)(A).).

Antimony, Nickel, Sulfate, TCDD, and Thallium at Discharge Point 008: Effluent Limitations Removed Based on Reasonable Potential Analysis (New Information)

As set forth above, CWA section 402(o)(2)(B)(i) allows revisions of permit effluent limitations based on new information. The final effluent limitations for antimony, nickel, TCDD, and thallium at Discharge Point 008 (discharging to Dayton Canyon Creek) that were included in R4-2015-0033 are not retained in this Order because the discharges did not show reasonable potential to cause or contribute to an exceedance of the applicable water quality criteria for these pollutants, based on the recent monitoring data.

An Interim Source Removal Action was completed in 2010 that removed more than 4,000 cubic yards of soil in the Outfall 008 watershed. The reasonable potential analysis using the updated monitoring data collected after the soil removal justifies removal of the effluent limitation for antimony, nickel, sulfate, TCDD, and thallium based on the exception above. The removal of effluent limitations for this pollutant is thus consistent with the anti-backsliding requirements of the CWA and federal regulations. Additionally, Dayton Canyon Creek is not impaired for antimony, nickel, TCDD, and thallium. Under CWA section 303(d)(4)(B), a limitation based on a TMDL, WLA, other water quality standard may be relaxed where the action is consistent with state's

antidegradation policy. As described below, relaxation or removal of effluent limitations for these pollutants is consistent with the state and federal antidegradation policies. Nonetheless, this Order retains effluent monitoring for these pollutants, in accordance with the SIP.

Iron at Discharge Points 011 and 018: Effluent Limitations Removed Based on New Information

A less stringent effluent limitation may be applied, pursuant to Section 402(o)(2)(B)(i), when there is new information which was not available at the time of permit issuance. Here, this exception applies and justifies the removal of effluent limits for iron at Discharge Points 011 and 018, discharging to Bell Canyon Creek, as set forth below.

Studies conducted by the Surface Water Expert Panel, utilizing temporal and spatial patterns, as well as particulate strength and metal fingerprinting studies conclude that elevated levels of iron are likely due to site specific natural background concentrations. The background locations in the studies were in natural, undisturbed reference watersheds with similar geology, rainfall, and sediment yields as the industrial areas at the Facility. The background sites were located in areas not associated with industrial activity at the Facility as well as in offsite reference watersheds as published by SCCWRP and Los Angeles County. Monitoring data from the background sites were used for comparison with runoff data from SSFL. Based on the studies, iron concentrations are likely from soils that are naturally occurring and not related to past industrial activity that occurred at the site.

Secondary maximum contaminant levels (SMCLs) are protective of beneficial uses including municipal drinking water (MUN) and groundwater recharge (GWR) where the underlying groundwater has a designated MUN beneficial use. The SMCLs that were used to establish effluent limits for iron in Order 2015-0033 were based on a narrative Basin Plan water quality objective, designed to protect for taste, color, or odor, all of which are aesthetic qualities generally associated with drinking water, and not health-based limits. Further, this Order includes and protects for GWR and MUN beneficial uses through the application of other effluent limitations based on Title 22 primary MCLs. Based on the new information from the Surface Water Expert Panel studies, the exception to the prohibition on relaxation of effluent limitations found in section 402(o)(2)(B)(i) allows the removal of these effluent limitations. Additionally, Bell Canyon Creek is not impaired for iron. Under CWA section 303(d)(4)(B), a limitation based on a TMDL, WLA, other water quality standard may be relaxed where the action is consistent with state's antidegradation policy. As described below, relaxation or removal of effluent limitations for iron is consistent with the state and federal antidegradation policies. Nonetheless, this Order retains effluent monitoring for iron.

4.4.2. Antidegradation Policies

40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. On

October 28, 1968, the State Water Board established California's antidegradation policy when it adopted Resolution Number 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California. Resolution Number 68-16 requires that high quality waters be maintained unless degradation is justified based on specific findings. The State Water Board has, in State Water Board Order Number 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution Number 68-16 to be fully consistent with the federal antidegradation policy contained in 40 CFR section 131.12. Similarly, CWA section 303(d)(4)(B) and 40 CFR section 131.12 require that all permitting actions be consistent with the federal antidegradation policy. Together, the state and federal antidegradation policies are designed to ensure that a high-quality water will not be degraded as a result of the permitted discharge unless certain exceptions are met. The Los Angeles Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies.

In the context of the Order, a federal NPDES permit, compliance with the federal antidegradation policy requires consideration of the following. First, the Los Angeles Water Board must ensure that "existing instream uses and the level of water quality necessary to protect the existing uses" are maintained and protected.⁵ Second, if the baseline quality of a waterbody for a given constituent "exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected" through the requirements of the Order unless the Los Angeles Water Board makes findings that: (1) any lowering of the water quality is "necessary to accommodate important economic or social development in the area in which the waters are located"; (2) "water quality adequate to protect existing uses fully" is assured; and (3) "the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control" are achieved.⁶ Under this second tier review, the Board may identify any high quality waters for protection through the public process of a permitting action, as it is here. Before allowing any lowering of high-quality water, the Board must conduct an analysis of alternatives that evaluates practicable alternatives that would prevent or lessen the degradation associated with the discharges permitted. In the context of 40 CFR § 131.12(a)(2)(ii), practicable means "technologically possible, able to be put into practice, and economically viable."⁷

The Order must also comply with any requirements of State Water Board Resolution No. 68-16 beyond those imposed through incorporation of the federal

⁵ 40 CFR § 131.12(a)(1). This provision has been interpreted to mean that, "[i]f baseline water quality is equal to or less than the quality as defined by the water quality objective, water quality shall be maintained or improved to a level that achieves the objectives." (State Water Board, Administrative Procedures Update, Antidegradation Policy Implementation for NPDES Permitting, 90-004 (APU 90-004), p. 4.)

⁶ 40 CFR § 131.12(a)(2).

⁷ 40 CFR § 131.3(n)

antidegradation policy. (See State Water Board Order WQ 86-17 (Fay), p. 23, fn. 11.) Resolution No. 68-16 requires findings that any lowering of high water quality is “consistent with the maximum benefit to the people of the State” and “will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies” and further that the discharge is subject to “waste discharge requirements which will result in the best practicable treatment or control of the discharge.”⁸ The baseline quality considered in making the appropriate findings is the best quality of the water since 1968, the year of adoption of Resolution No. 68-16, or a lower level if that lower level was allowed through a permitting or other regulatory action, such as establishing a water quality objective, that was consistent with the federal and state antidegradation policies.⁹ The following analysis assumes, without deciding, that the baseline for antidegradation analysis is 1968.¹⁰

Here, the Los Angeles Water Board finds that the permitted discharges authorized by this Order are consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

As an initial matter, there is insufficient data to determine whether the receiving waters here are high quality with respect to each of the pollutants at issue. But even if the waters were high quality for all of the constituents at issue here, the

⁸ State Water Board Resolution No. 68-16, Resolve 2. Best practicable treatment or control is not defined in Resolution No. 68-16; however, the State Water Board has evaluated what level of treatment or control is technically achievable using “best efforts.” (See State Water Board Orders WQ 81-5 (City of Lompoc), WQ 82-5 (Chino Basin Municipal Water District), WQ 90-6 (Environmental Resources Protection Council).) A Questions and Answers document on Resolution No. 68-16 by the State Water Board states as follows: “To evaluate the best practicable treatment or control method, the discharger should compare the proposed method to existing proven technology; evaluate performance data, e.g. through treatability studies; compare alternative methods of treatment or control; and/or consider the method currently used by the discharger or similarly situated dischargers . . . The costs of the treatment or control should also be considered . . .” (Questions and Answers, Resolution No. 68-16, State Water Board (Feb. 16, 1995), pp. 5-6.)

⁹ APU 90-004, p.4. The baseline for application of the federal antidegradation policy is 1975, which is the date used in 40 CFR § 131.3(e) to define existing uses of a waterbody. For state antidegradation requirements, see also *Asociacion de Gente Unida por el Agua (AGUA) v. Central Valley Water Board* (2012) 210 Cal.App.4th 1255,1270. The baseline for the application of the state antidegradation policy is generally the highest water quality achieved since 1968, the year the policy was adopted.

¹⁰ The baseline may be later than 1968 for two reasons. First, the appropriate baseline is determined by the date on which a policy establishing the level of water quality to protect was effective. (Resolution 68- 16, Resolve 1.) The Region’s Basin Plan has been updated and amended several times since 1971, when it was first adopted, to include new or revised water quality objectives. Second, a permitting action with appropriate antidegradation findings allowing degradation may establish a new baseline consistent with the level of water quality achieved under that permit. The Los Angeles Water Board has regulated the Permittee’s discharges since 1976. APU 90-004 acknowledges that no antidegradation analysis is required where the regional water board has no expectation that water quality will be reduced by the permitting action; here, if the water quality achieved under the prior permits was used as the baseline, arguably, no antidegradation analysis would be required. (APU 90-004, p. 2.) Nevertheless, and due in part to the lack of consistent water quality data in the Region since 1968, and for ease of analysis, 1968 is used herein as the baseline.

discharges to surface water would be consistent with the antidegradation policies. The rationale upon which this finding is based is set forth below.

Copper and Zinc at Discharge Points 008, 011, and 018 and Copper and Nickel at Discharge Points 003 to 007, 009, and 010

As an initial matter, the Los Angeles River and Calleguas Creek are not high quality for these pollutants, which are addressed in the Los Angeles Rivers and Calleguas Creek Metals TMDLs.

Furthermore, even if the antidegradation policies applied, the policies would not be violated. The new limits are all consistent with the assumptions and requirements of the WLAs in the TMDLs, which means that water quality objectives will be achieved within a reasonable time period set forth in the TMDL implementation schedules. The antidegradation policies do not require immediate compliance with water quality objectives.

The new MDELs for copper and zinc at Discharge Points 011, 018 and 008 will not result in degradation to receiving waters. The new MDELs for copper and nickel at Discharge Points 003 to 007, 009, and 010 will not result in degradation to receiving waters. The extensive monitoring and reporting requirements will further ensure no degradation occurs.

TSS and Settleable Solids at Discharge Points 011 and 018 and Selenium and Dry-Weather Cadmium at Discharge Points 011 and 018

As set forth above, operation of the GETS has been modified to re-inject treated groundwater such that no discharge to surface waters will occur. As such, discharges containing cadmium and selenium no longer enter surface water at these Discharge Points and will not degrade surface water.¹¹

Dry-Weather Cadmium at Discharge Point 008

Effluent limitations in the previous order included dry- and wet-weather limitations for Cadmium triggered by the presence of the Los Angeles River Metals TMDL. Now that there are no longer dry-weather discharges, the dry-weather effluent limitation for cadmium triggered by the TMDL is removed for Discharge Point 008 (discharging to Dayton Canyon). The effluent limitation for wet-weather flow for cadmium will remain unchanged and is consistent with the applicable TMDLs. As such, discharges containing cadmium no longer enter surface water at this Discharge Point during dry weather and will not degrade surface water.

Antimony, Nickel, Sulfate, TCDD, Thallium, and wet-weather Selenium at Discharge Point 008

Effluent limitations at Discharge Point 008 for antimony, nickel, sulfate, TCDD, thallium, and wet weather selenium are not included in this Order because monitoring data demonstrated that there is no reasonable potential for the discharge to cause or contribute to an exceedance of the water quality standard

¹¹ Discharges to groundwater through the GETS are covered under a different permit, Order No. R4-2014-0187.

for these pollutants. Dayton Canyon Creek, to which this outfall discharges, is not on the 303(d) list for antimony, nickel, TCDD, or Thallium, so it is possible that this is a high-quality water for these constituents. However, since there is no reasonable potential for these pollutants to exceed water quality standards, no degradation will occur and no alternatives analysis is necessary. There is monitoring for these constituents to ensure that water quality objectives continue to be attained and beneficial uses protected. Dayton Canyon Creek, is a tributary to the Los Angeles River, which is impaired for selenium and is assumed not to be a high quality water for selenium. Even if it was high quality, there is no reasonable potential for selenium discharges from Discharge Point 008 to exceed water quality standards thus no degradation will occur and no alternatives analysis is necessary.

Iron at Discharge Points 011 and 018

Iron secondary MCLs protect the municipal and domestic supply (MUN) beneficial use and the groundwater recharge (GWR) beneficial use, for aesthetic qualities, specifically color, taste, and odor, but are not health-based limits. The studies presented by the Surface Water Expert Panel indicate that elevated levels of iron are likely due to high naturally occurring concentrations of these constituents found in the soil, not due to previous industrial activity.

Bell Canyon Creek, to which these outfalls discharge, is not on the 303(d) list for iron, so it is possible that this is a high-quality water for these constituents. The waste discharge requirements in this Order hold the Discharger to performance levels consistent with the best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State will be maintained. The effluent limitations, receiving water limitations, and effluent and receiving water monitoring requirements ensure that any such pollution or nuisance will be apparent and can be addressed immediately. Any such discharge will not unreasonably affect present and anticipated uses of the water. Therefore, the permitted discharge is consistent with the state's antidegradation policy. Nonetheless, this Order retains effluent monitoring for iron, in accordance with the SIP, and to ensure that no degradation ensues.

4.4.3. Stringency of Requirements for Individual Pollutants

This Order contains both TBELs and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD and oil and grease. Restrictions on these pollutants are discussed in section 4.2.2 of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

WQBELs have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR section 131.38. The procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the

CTR implemented by the SIP, which was approved by U.S. EPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA” pursuant to 40 CFR section 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order were approved by U.S. EPA and are applicable water quality standards pursuant to section 131.21(c)(2). Collectively, this Order’s restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

4.4.4. Summary of Final Effluent Limitations

Table F-18. Summary of Final Limitations for Discharge Points 001, 002, 011, and 018

Parameters	Units	Maximum Daily Effluent Limitation	Basis for Limitation*	Notes
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	30	E, BP, BPJ	
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	lbs/day	29,481	E, BP, BPJ	a
Oil and Grease	mg/L	15	E, BP, BPJ	
Oil and Grease	lbs/day	14,741	E, BP, BPJ	a
pH	standard units	6.5/8.5	E, BP	b
Aluminum	mg/L	1.0	BP, MCL	
Aluminum	lbs/day	983	BP, MCL	a
Barium	mg/L	1.0	E, BP	
Barium	lbs/day	983	E, BP	a
Chloride	mg/L	150	E, BP	
Chloride	lbs/day	147,405	E, BP	a
Chlorine, Total Residual	mg/L	0.1	E, BP	
Chlorine, Total Residual	lbs/day	98.3	E, BP	a
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%	TST	c
Fluoride	mg/L	1.6	E, BP	
Fluoride	lbs/day	1,572	E, BP	a
Detergents (as MBAS)	mg/L	0.5	E, BP	
Detergents (as MBAS)	lbs/day	491.4	E, BP	a
Manganese	µg/L	50	E, BP	
Manganese	lbs/day	49.1	E, BP	a
Ammonia – N	mg/L	10.1	E, TMDL	
Ammonia – N	lbs/day	9,925	E, TMDL	a
Nitrate – N	mg/L	8	E, TMDL	
Nitrate – N	lbs/day	7,862	E, TMDL	a
Nitrite – N	mg/L	1	E, TMDL	

Parameters	Units	Maximum Daily Effluent Limitation	Basis for Limitation*	Notes
Nitrite – N	lbs/day	983	E, TMDL	a
Nitrate + Nitrite - N	mg/L	8	E, BP, TMDL	
Nitrate + Nitrite - N	lbs/day	7,862	E, BP, TMDL	a
Perchlorate	µg/L	6.0	E, BP	
Perchlorate	lbs/day	5.9	E, BP	a
Sulfate	mg/L	300	E, BP	
Sulfate	lbs/day	294,810	E, BP	a
Temperature	°F	80	E, BP	d
Total Dissolved Solids	lbs/day	950	E, BP	a
Total Dissolved Solids	mg/L	933,565	E, BP	
Radioactivity – Gross Alpha	pCi/L	15	E, BP	
Radioactivity – Gross Beta	millirem/yr	4	E, BP	
Combined Radium-226 & Radium-228	pCi/L	5.0	E, BP	
Tritium	pCi/L	20,000	E, BP	
Strontium-90	pCi/L	8.0	E, BP	
Uranium	pCi/L	20	E, BP	
Antimony, TR	µg/L	6.0	E, MCL	
Antimony, TR	lbs/day	5.9	E, MCL	a
Arsenic, TR	µg/L	10.0	E, MCL	
Arsenic, TR	lbs/day	9.83	E, MCL	a
Beryllium, TR	µg/L	4.0	E, BP, MCL	
Beryllium, TR	lbs/day	3.93	E, BP, MCL	a
Cadmium, TR	µg/L	3.1	E, CTR, TMDL	
Cadmium, TR	lbs/day	3.05	E, CTR, TMDL	a
Chromium (VI), TR	µg/L	16	E, CTR	
Chromium (VI), TR	lbs/day	15.72	E, CTR	a
Copper, TR	µg/L	67.5	E, CTR, TMDL	
Copper, TR	lbs/day	66.3	E, CTR, TMDL	a
Lead, TR	µg/L	5.2	E, CTR	
Lead, TR	lbs/day	5.11	E, CTR	a
Mercury, TR	µg/L	0.1	E, CTR	
Mercury, TR	lbs/day	0.1	E, CTR	a
Nickel, TR	µg/L	94	E, CTR	
Nickel, TR	lbs/day	92.4	E, CTR	a
Selenium, TR	µg/L	8.2	E, CTR	
Selenium, TR	lbs/day	8.1	E, CTR	a
Silver, TR	µg/L	4.1	E, CTR	
Silver, TR	lbs/day	4.03	E, CTR	a
Thallium, TR	µg/L	2.0	E, CTR, MCL	
Thallium, TR	lbs/day	1.97	E, CTR, MCL	a

Parameters	Units	Maximum Daily Effluent Limitation	Basis for Limitation*	Notes
Zinc, TR	µg/L	159	E, CTR, TMDL	
Zinc, TR	lbs/day	156.25	E, CTR, TMDL	a
Cyanide	µg/L	8.5	E, CTR	
Cyanide	lbs/day	8.4	E, CTR	a
2,3,7,8-TCDD Equivalents	µg/L	2.8E-08	E, CTR	e
2,3,7,8-TCDD Equivalents	lbs/day	2.75E-08	E, CTR	a
1,2-Dichloroethane	µg/L	0.5	E, CTR	
1,2-Dichloroethane	lbs/day	0.49	E, CTR	a
1,1-Dichloroethylene	µg/L	6.0	E, CTR, MCL	
1,1-Dichloroethylene	lbs/day	5.9	E, CTR, MCL	a
Trichloroethylene	µg/L	5.0	E, CTR, MCL	
Trichloroethylene	lbs/day	4.9	E, CTR, MCL	a
Pentachlorophenol	µg/L	16.5	CTR, SIP	
Pentachlorophenol	lbs/day	0.983	CTR, SIP	a
2,4,6-Trichlorophenol	µg/L	13	E, CTR	
2,4,6-Trichlorophenol	lbs/day	12.8	E, CTR	a
Benzidine	µg/L	0.00054	CTR, SIP	
Benzidine	lbs/day	0.0053	CTR, SIP	a
Bis(2-ethylhexyl) Phthalate	µg/L	4	E, CTR	
Bis(2-ethylhexyl) Phthalate	lbs/day	3.93	E, CTR	a
3,3'-Dichlorobenzidine	µg/L	0.077	CTR, SIP	
3,3'-Dichlorobenzidine	lbs/day	0.076	CTR, SIP	a
2,4-Dinitrotoluene	µg/L	18	E	
2,4-Dinitrotoluene	lbs/day	17.7	E	a
Indeno(1,2,3-cd) Pyrene	µg/L	0.1	CTR, SIP	
Indeno(1,2,3-cd) Pyrene	lbs/day	0.1	CTR, SIP	a
N-Nitrosodimethylamine	µg/L	16	E	
N-Nitrosodimethylamine	lbs/day	15.72	E	a
alpha-BHC	µg/L	0.03	E	
alpha-BHC	lbs/day	0.03	E	a
4,4'-DDE	µg/L	0.00059	CTR, SIP	
4,4'-DDE	lbs/day	0.00058	CTR, SIP	a
Heptachlor	µg/L	0.00042	CTR, SIP	
Heptachlor	lbs/day	0.00041	CTR, SIP	a

Footnotes for Table F-18

* Abbreviations:

BP: Basin Plan

CTR: California Toxics Rule

MCL: CA Title 22 MCLs

TMDL: Total Maximum Daily Load TST: Test of Significant Toxicity

BPJ: Best Professional Judgment

E: Existing Requirement (Order R4-2015-0033)

SIP: State Implementation Policy

- a. The mass-based limitations are calculated using the maximum flow of 117.83 million gallons per day (MGD) for Discharge Points 001, 002, 011, and 018. If the recorded flow is different, the mass should be recalculated using the equation:

$$\text{Mass (lbs/day)} = \text{Flow (mgd)} * 8.34 * \text{concentration (mg/L)}.$$

- b. Instantaneous minimum and maximum effluent limits.
c. The MDEL shall be reported in "Pass" or "Fail" and "% Effect".
d. Water temperature shall not be altered by more than 5°F above the natural temperature.
e. TCDD equivalents shall be calculated using the following formula, where the MLs, TEFs, and BEFs are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

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

where: C_x = concentration of dioxin or furan congener x

TEF_x = TEF for congener x

BEF_x = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

End of Footnotes for Table F-18

Table F-19. Summary of Final Effluent Limitations at Discharge Points 003, 004, 005, 006, 007, 009, 010

Parameters	Units	Maximum Daily Effluent Limitation	Basis for Limitation*	Notes
Oil and Grease	mg/L	15	E, BPJ	
Oil and Grease	lbs/day	8,048	E, BPJ	a
pH	standard units	6.5/8.5	E, BP	b
Aluminum	mg/L	1.0	BP, MCL	
Aluminum	lbs/day	537	BP, MCL	a
Boron	mg/L	1.0	E, BP	
Boron	lbs/day	537	E, BP	a
Chloride	mg/L	150	E, BP	
Chloride	lbs/day	80,477	E, BP	a
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%	TST	c
Fluoride	mg/L	1.6	E, BP	
Fluoride	lbs/day	858	E, BP	a
Nitrate + Nitrite - N	mg/L	10	E, BP	
Nitrate + Nitrite - N	lbs/day	5,365	E, BP	a
Perchlorate	mg/L	6.0	E, MCL	
Perchlorate	lbs/day	3.22	E, MCL	a
Sulfate	mg/L	250	E, BP	
Sulfate	lbs/day	134,128	E, BP	a
Temperature	degrees °F	80	E, BP	d
Total Dissolved Solids	lbs/day	850	E, BP	a
Total Dissolved Solids	mg/L	456,034	E, BP	
Radioactivity – Gross Alpha	pCi/L	15	E, BP	
Radioactivity – Gross Beta	millirem/yr	4	E, BP	
Combined Radium-226 & Radium-228	pCi/L	5.0	E, BP	
Tritium	pCi/L	20,000	E, BP	
Strontium-90	pCi/L	8.0	E, BP	
Uranium	pCi/L	20	E, BP	
Antimony, TR	µg/L	6.0	E, MCL	
Antimony, TR	lbs/day	3.2	E, MCL	a
Cadmium, TR	µg/L	4.0	E, CTR	
Cadmium, TR	lbs/day	2.1	E, CTR	a
Copper, TR	µg/L	31	E, CTR, TMDL	
Copper, TR	lbs/day	16.6	E, CTR, TMDL	a
Lead, TR	µg/L	5.2	BP	
Lead, TR	lbs/day	2.8	BP	a
Mercury, TR	µg/L	0.024	MP	
Mercury, TR	lbs/day	0.013	MP	a

Parameters	Units	Maximum Daily Effluent Limitation	Basis for Limitation*	Notes
Nickel, TR	µg/L	100	E, MCL	
Nickel, TR	lbs/day	53.7	E, MCL	a
Thallium, TR	µg/L	2.0	E, CTR, MCL	
Thallium, TR	lbs/day	1.1	E, CTR, MCL	a
Zinc, TR	µg/L	120	E, CTR	
Zinc, TR	lbs/day	64.4	E, CTR	a
Cyanide	µg/L	9.5	E, CTR	
Cyanide	lbs/day	5.1	E, CTR	a
TCDD Equivalents	µg/L	2.8E-08	E, CTR	e
TCDD Equivalents	lbs/day	1.5E-08	E, CTR	a
Pentachlorophenol	µg/L	1.0	CTR, SIP	
Pentachlorophenol	lbs/day	0.54	CTR, SIP	a
Bis(2-ethylhexyl) Phthalate	µg/L	4.0	CTR, SIP	
Bis(2-ethylhexyl) Phthalate	lbs/day	2.1	CTR, SIP	a

Footnotes for Table F-19

* Abbreviations:

BP: Basin Plan

BPJ: Best Professional Judgment

CTR: California Toxics Rule

E: Existing Requirement (Order R4-2015-0033)

MCL: CA Title 22 MCLs

SIP: State Implementation Policy

TMDL: Total Maximum Daily Load TST: Test of Significant Toxicity

- a. The mass-based effluent limitations are calculated using the maximum flow for Discharge Points 003, 004, 005, 006, 007, 009, and 010 is 64.33 MGD and are calculated as follows:

$$\text{Mass (lbs/day)} = \text{Flow (mgd)} * 8.34 * \text{concentration (mg/L)}.$$

- b. Instantaneous minimum and maximum effluent limits.
- c. The MDEL shall be reported in "Pass" or "Fail" and "% Effect".
- d. For temperature, the maximum temperature of the effluent shall not exceed the natural temperature of the receiving waters by more than 20°F.
- e. TCDD equivalents shall be calculated using the following formula, where the MLs, TEFs, and BEFs are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

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

where: C_x = concentration of dioxin or furan congener x

TEF_x = TEF for congener x

BEF_x = BEF for congener x

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0

Dioxin or Furan Congener	Minimum Level (pg/L)	Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

End of Footnotes for Table F-19

Table F-20. Summary of Final Effluent Limitations at Discharge Point 008

Parameters	Units	Maximum Daily Effluent Limitation	Basis for Limitation*	Notes
Oil and Grease	mg/L	15	E, BPJ	
Oil and Grease	lbs/day	902	E, BPJ	a
pH	standard units	6.5/8.5	E, BP	b
Aluminum	mg/L	1.0	BP, MCL	
Aluminum	lbs/day	60	BP, MCL	a
Boron	mg/L	1.0	E, BP	
Boron	lbs/day	60	E, BP	a
Chloride	mg/L	150	E, BP	
Chloride	lbs/day	9,020	E, BP	a
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%	TST	c
Fluoride	mg/L	1.6	E, BPJ	
Fluoride	lbs/day	96.2	E, BPJ	a
Ammonia – N	mg/L	10.1	E, TMDL	

Parameters	Units	Maximum Daily Effluent Limitation	Basis for Limitation*	Notes
Ammonia – N	lbs/day	607.3	E, TMDL	a
Nitrate – N	mg/L	8	E, TMDL	
Nitrate – N	lbs/day	481	E, TMDL	a
Nitrite – N	mg/L	1	E, TMDL	
Nitrite – N	lbs/day	60	E, TMDL	a
Nitrate + Nitrite - N	mg/L	8	E, BP	
Nitrate + Nitrite - N	lbs/day	481	E, BP	a
Perchlorate	µg/L	6.0	E, BPJ, MCL	
Perchlorate	lbs/day	0.36	E, BPJ, MCL	a
Sulfate	mg/L	300	E, BP	
Sulfate	lbs/day	18,039	E, BP	a
Temperature	degrees °F	80	E, BP	d
Total Dissolved Solids	mg/L	950	E, BP	a
Total Dissolved Solids	lbs/day	57,124	E, BP	
Radioactivity – Gross Alpha	pCi/L	15	E, BP, BPJ	
Radioactivity – Gross Beta	millirem/yr	4	E, BP, BPJ	
Combined Radium-226 & Radium-228	pCi/L	5.0	E, BP, BPJ	
Tritium	pCi/L	20,000	E, BP, BPJ	
Strontium-90	pCi/L	8.0	E, BP, BPJ	
Uranium	pCi/L	20	E, BP, BPJ	
Arsenic, TR	µg/L	10.0	MCL	
Arsenic, TR	lbs/day	0.6	MCL	a
Cadmium, TR	µg/L	3.1	E, CTR, TMDL	
Cadmium, TR	lbs/day	0.19	E, CTR, TMDL	a
Copper, TR	µg/L	67.5	E, CTR, TMDL	
Copper, TR	lbs/day	4.1	E, CTR, TMDL	a
Lead, TR	µg/L	5.2	E, CTR	
Lead, TR	lbs/day	0.31	E, CTR	a
Mercury	µg/L	0.024	MP	
Mercury	lbs/day	0.0014	MP	a
Zinc, TR	µg/L	159	E, CTR, TMDL	
Zinc, TR	lbs/day	9.6	E, CTR, TMDL	a
Cyanide	µg/L	9.5	E, CTR	
Cyanide	lbs/day	0.57	E, CTR	a
Benzidine	µg/L	0.00054	CTR, SIP	
Benzidine	lbs/day	3.2E-05	CTR, SIP	a
3,3'-Dichlorobenzidine	µg/L	0.077	CTR, SIP	
3,3'-Dichlorobenzidine	lbs/day	0.0046	CTR, SIP	a
4,4'-DDE	µg/L	0.00059	CTR, SIP	

Parameters	Units	Maximum Daily Effluent Limitation	Basis for Limitation*	Notes
4,4'-DDE	lbs/day	3.5E-05	CTR, SIP	a

Footnotes for Table F-20

* Abbreviations:

BP: Basin Plan

BPJ: Best Professional Judgment

CTR: California Toxics Rule

E: Existing Requirement (Order R4-2015-0033)

MCL: CA Title 22 MCLs

MP: Mercury Provisions

SIP: State Implementation Policy TMDL: Total Maximum Daily Load

TST: Test of Significant Toxicity

- a. The mass-based effluent limitations are calculated using the maximum flow for Discharge Point 008 is 7.21 MGD and is calculated as follows:

$$\text{Mass (lbs/day)} = \text{Flow (mgd)} * 8.34 * \text{concentration (mg/L)}.$$

- b. Instantaneous minimum and maximum effluent limits.
c. The MDEL shall be reported in "Pass" or "Fail" and "% Effect".
d. For temperature, the maximum temperature of the effluent shall not exceed the natural temperature of the receiving waters by more than 20°F.

End of Footnotes for Table F-20

4.5. Interim Effluent Limitations – Not Applicable

4.6. Land Discharge Specifications – Not Applicable

4.7. Recycling Specifications – Not Applicable

5. RATIONALE FOR RECEIVING WATER LIMITATIONS

The receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan and applicable statewide water quality control plans. As such, they are a required part of the proposed Order.

5.1. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. These water quality objectives include the requirement to maintain high-quality waters pursuant to federal regulations (40 CFR section 131.12) and State Water Board Resolution Number 68-16. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water and are based on water quality objectives contained in the Basin Plan and applicable statewide water quality control plans.

5.2. Groundwater – Not Applicable

6. RATIONALE FOR PROVISIONS

6.1. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Sections 122.41(a)(1) and (b) through (n) of 40 CFR 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) of 40 CFR allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR 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).

6.2. Special Provisions

6.2.1. Reopener Provisions

These provisions are based on 40 CFR part 123. The Los Angeles Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include but are not limited to the promulgation of new federal regulations, modification in toxicity requirements, the need to include other parties as named dischargers in addition to Boeing, and/or to reissue the Order to parties other than Boeing, or adoption of new regulations by the State Water Board or Los Angeles Water Board, including revisions to the Basin Plan. Additional specific bases upon which to reopen the permit are set forth in Part 6.3.1.

6.2.2. Special Studies and Additional Monitoring Requirements

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

6.2.3. Best Management Practices and Pollution Prevention

a. Stormwater Pollution Prevention Plan (SWPPP)

Within 90 days of the effective date of this Order, the Discharger is required to update and submit the SWPPP for the Facility using Attachment G of this Order as guidance. An updated SWPPP that describes site-specific management practices for minimizing contamination of stormwater runoff and for preventing

contaminated stormwater runoff from being discharged directly to waters of the State. The SWPPP shall address procedures for preventing fire test water from commingling with stormwater discharges.

b. Best Management Practice Plan (BMPP)

Within 90 days of the effective date of this Order, the Discharger is required to update and submit the BMPP for the Facility using Attachment G of this Order as guidance. An updated BMPP that will be implemented to reduce the discharge of pollutants to the receiving water. The BMPP shall include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. Further, the Discharger shall ensure that the stormwater discharges from the Facility would neither cause, nor contribute to the exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water, and that unauthorized discharges (i.e., spills) to the receiving water have been effectively prohibited. In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters.

c. Spill Contingency Plan (SCP)

Within 90 days of the effective date of this Order, the Discharger is required to update and submit the SCCP for the Facility, that shall include a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site. The SCP may be substituted with an updated version the Discharger's existing Spill Prevention Control and Countermeasure (SPCC) Plan.

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

The Discharger shall implement the SWPPP, BMPP, and SCP (or SPCC Plan) within 10 days of the approval by the Executive Officer or no later than 90 days after submission to the Los Angeles Water Board, whichever comes first. The plans shall be reviewed annually and at the same time. Updated information shall be submitted to the Los Angeles Water Board within 30 days of revisions.

6.2.4. Construction, Operation and Maintenance Specifications

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

6.2.5. Climate Change Effects Vulnerability Assessment and Mitigation Plan

The Discharger is required to address potential climate change impacts through the development and implementation of a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan), which is due 12 months after the effective date of the Order. This requirement is based on the need to adapt to and mitigate the effects of climate change on permitted facilities as described in State Water Board's Resolution No. 2017-0012 and the Regional Los Angeles Water Board's Resolution No. R18-004.

6.2.6. Special Provisions for Publicly-Owned Treatment Works (POTWs) – Not Applicable

6.2.7. Other Special Provisions – Not Applicable

6.2.8. Compliance Schedules – Not Applicable

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code section 13383 authorizes the Los Angeles Water Board to establish monitoring, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

7.1. Influent Monitoring

Influent monitoring is required to monitor the contaminant concentration trends prior to treatment and to assess the effectiveness and performance of the treatment system.

7.2. Effluent Monitoring

Monitoring for pollutants expected to be present in the discharge are required as established in the MRP (Attachment E) and as required in the SIP. To demonstrate compliance with established effluent limitations, the Order includes monitoring requirements of once per discharge event for parameters with effluent limitations, and for parameters for which WLAs have been prescribed in a TMDL. Chronic toxicity monitoring is required at least once a year. Monitoring for additional pollutants is required based on considerations of pollutants commonly associated with similar operations and historical presence in the discharge.

The SIP states that the Los Angeles Water Board will require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established. The Los Angeles Water Board will use the additional data to conduct an RPA and determine if additional WQBELs are required. The Los Angeles Water Board may reopen the permit to incorporate additional effluent limitations and requirements, if necessary.

7.3. Stormwater Monitoring

Stormwater runoff discharges from the SSFL are subject to requirements identified in this Order and the Discharger is required to comply with all applicable provisions of the Stormwater Pollution Prevention Plan (SWPPP). This Order includes requirements to develop, implement, and, when appropriate, update the SWPPP along with the BMPs with the goal of preventing all pollutants from moving into receiving waters. In order to evaluate the effectiveness of the SWPPP, rainfall monitoring and visual stormwater monitoring are required during discharge events.

7.4. Whole Effluent Toxicity (WET) Testing Requirements

WET testing protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. A chemical at a low concentration can have chronic effects but no acute effects. For this permit, chronic toxicity monitoring in the discharge is required. The chronic toxicity testing requirements are based on U.S. EPA's 2010 TST statistical approach.

This Order requires routine monitoring for chronic toxicity to measure the aggregate toxic properties of the discharge. For this permit, chronic toxicity in the discharge is limited and evaluated using U.S. EPA's 2010 TST statistical approach.

7.5. Receiving Water Monitoring

7.5.1. Surface Water

The SIP requires monitoring of the upstream receiving water for the CTR priority pollutants, including TCDD equivalents, to determine reasonable potential. This Order requires that the Discharger conduct receiving water monitoring of the CTR priority pollutants at Monitoring Locations RSW-001, RSW-002, and RSW-003. The Discharger may use data collected at EFF-001, EFF-002, EFF-011, or EFF-018 for RSW-001. RSW-002 is located in Frontier Park approximately 50 feet downstream from the discharge point of the unnamed tributary into the Arroyo Simi in the City of Simi Valley. RSW-003 is located in the City of Simi Valley approximately 3 miles upstream of Frontier Park. Priority pollutant monitoring is required from all three receiving water locations for the Arroyo Simi and Bell Creek (as identified previously, the Discharger may use data from EFF-001, 002, 011, or 018 for Bell Creek) once during the five-year permit term.

This Order includes monitoring requirements for the downstream location, Monitoring Location RSW-001. Monitoring for dissolved oxygen is required to demonstrate compliance with Basin Plan Objectives. In addition, at Monitoring Location RSW-002 the Discharger must monitor for pH, and temperature to adjust the ammonia water quality objective, expressed as un-ionized ammonia, to total ammonia and to determine potential impacts of ammonia effluent concentrations to the receiving water concentrations. The sampling data will be used for purposes of reasonable potential analysis and for monitoring analysis in comparison with RSW-002.

7.5.2. Groundwater – Not Applicable

7.6. Other Monitoring Requirements

7.6.1. Sediment Monitoring Requirements

The Calleguas Creek OC Pesticides & PCBs TMDL includes sediment contaminant concentrations for tributaries of Calleguas Creek as well. This Order includes monitoring requirements to determine compliance with effluent limits.

7.6.2. Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), USEPA requires major permittees under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by USEPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to U.S. EPA's DMR-QA Coordinator and Quality Assurance Manager.

8. PUBLIC PARTICIPATION

The Los Angeles Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the Facility. As a step in the WDR adoption process, Los Angeles Water Board staff developed tentative WDRs. The Los Angeles Water Board encouraged public participation in the WDR adoption process.

8.1. Notification of Interested Parties

The Los Angeles Water Board notified the Discharger and interested agencies and persons of its consideration to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through email and public notice.

The public was provided 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>.

8.2. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process electronically at losangeles@waterboards.ca.gov with a copy to duong.trinh@waterboards.ca.gov.

To be fully responded to by staff and considered by the Los Angeles Water Board, written comments were due at the Los Angeles Water Board office by 5:00 p.m. on August 21, 2023.

8.3. Public Hearing

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

Date: September 28, 2023
Time: 9:00 AM
Location: Board of Supervisors Hearing Room
Ventura County Government Center
800 S. Victoria Avenue #1920
Ventura, CA 93009

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

8.4. Reconsideration of Waste Discharge Requirements

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

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100
Or by email at waterqualitypetitions@waterboards.ca.gov

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

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

8.5. 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.

The tentative WDRs, comments received and response to comments are also available on the Los Angeles Water Board's website at:

http://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/index.shtml

8.6. Register of Interested Persons

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

8.7. Additional Information

Requests for additional information or questions regarding this order should be directed to Duong Trinh at duong.trinh@waterboards.ca.gov.

ATTACHMENT G – STORMWATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. IMPLEMENTATION SCHEDULE

A stormwater pollution prevention plan (SWPPP) shall be developed and submitted to the Los Angeles Water Board within 90 days following the adoption of this Order. The SWPPP shall be implemented for each facility covered by this Permit within 10 days of approval from the Los Angeles Water Board, or no later than 90 days from the date of the submittal of the SWPPP to the Los Angeles Water Board (whichever comes first).

2. OBJECTIVES

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

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

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

3. PLANNING AND ORGANIZATION

3.1 Pollution Prevention Team

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

3.2 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 stormwater pollutant control measures or relate to the requirements of this Permit. As examples, facility operators whose facilities are subject to federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

TABLE A
FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL
STORMWATER 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-stormwater 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

4. 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 stormwater drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas, if any; 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 stormwater discharges may be received.
- B. The location of the stormwater collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect stormwater discharges. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, skim ponds, 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 6.1.4. below have occurred.
- E. Areas of past 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 past industrial activity which are potential pollutant sources.

5. LIST OF SIGNIFICANT MATERIALS

The SWPPP shall include a list of significant materials¹² handled and stored at the site currently or in the past. For each material on the list, describe the locations where the material is being (or was historically) 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.

¹² "Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges. (40 C.F.R. § 122.26(b)(12).)

6. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES

The SWPPP shall include a narrative description of the facility's past industrial activities, as identified in section 4.5. above, associated potential pollutant sources, and potential pollutants that could be discharged in stormwater discharges. At a minimum, the following items related to a facility's past industrial activities shall be considered:

- A. **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.
- B. **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.
- C. **Dust and Particulate Generating Activities.** Describe all past 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.
- D. **Significant Spills and Leaks.** Describe materials that have spilled or leaked in significant quantities in stormwater discharges or non-stormwater discharges since April 17, 1994. Include toxic chemicals (listed in 40 Code of Federal Regulations (CFR), part 302) that have been discharged to stormwater 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 CFR, parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to stormwater or non-stormwater 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.

- E. **Non-Stormwater Discharges.** Facility operators shall investigate the facility to identify all non-stormwater 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-stormwater discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-stormwater discharges and associated drainage area.

Non-stormwater discharges are not authorized by this Permit. The SWPPP must include BMPs to prevent or reduce contact of non-stormwater discharges with significant materials (as defined in Footnote 12 of section 5 above) or equipment.

F. **Soil Erosion.** Describe the facility locations where soil erosion may occur as a result of past industrial activity or stormwater discharges associated with past industrial activity.

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

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

7. ASSESSMENT OF POTENTIAL POLLUTANT SOURCES

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

- A. Which areas of the facility are likely sources of pollutants in stormwater discharges, and
- B. Which pollutants are likely to be present in stormwater discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current stormwater BMPs; quantities of significant materials handled, produced, stored, or disposed of as part of past industrial activities; likelihood of exposure to stormwater; history of spill or leaks; and run-on from outside sources.

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 stormwater discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in section 8 below.

8. STORMWATER BEST MANAGEMENT PRACTICES

The SWPPP shall include a narrative description of the stormwater BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (sections 6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in stormwater discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

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

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

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 stormwater discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similarly to Table B.

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

8.1 Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with past industrial activity from contacting stormwater 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 8.2. below). Below is a list of non-structural BMPs that should be considered:

- A. **Good Housekeeping.** Good housekeeping generally consists of practical procedures to maintain a clean and orderly facility.
- B. **Preventive Maintenance.** Preventive maintenance includes the regular inspection and maintenance of structural stormwater controls (catch basins, skim ponds, etc.) as well as other facility equipment and systems.
- C. **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.
- D. **Material Handling and Storage.** This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to stormwater.
- E. **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 stormwater. 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.
- F. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.
- G. **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.
- H. **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.
- I. **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.
- J. **Quality Assurance.** This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

8.2 Structural BMPs

Where non-structural BMPs as identified in section 8.1. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in stormwater discharges. Below is a list of structural BMPs that should be considered:

- A. **Overhead Coverage.** This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with stormwater.
- B. **Retention Ponds.** This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow stormwater to discharge from the facility.
- C. **Control Devices.** This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.
- D. **Secondary Containment Structures.** This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.
- E. **Treatment.** This includes inlet controls, infiltration devices, skim ponds, detention ponds, vegetative swales, etc. that reduce the pollutants in stormwater discharges.

9. ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (January 1 – December 31). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 10 days of approval by the Executive Officer or no later than 90 days after submission to the Los Angeles 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 10.E., for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this 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 5.2.5 of Attachment D.

10. SWPPP GENERAL REQUIREMENTS

- A. The SWPPP shall be retained on site and made available upon request of a representative of the Los Angeles Water Board and/or local stormwater management agency (local agency) which receives the stormwater discharges.
- B. The Los Angeles 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 Los Angeles 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 Los Angeles Water Board and/or local agency that requested the SWPPP revisions. Within 10 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Los Angeles 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 stormwater discharge, (ii) cause a new area of industrial activity at the facility to be exposed to stormwater, 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 Los Angeles 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 stormwater discharges. Such reports are subject to Los Angeles Water Board approval and/or modifications. Facility operators shall provide written notification to the Los Angeles Water Board within 10 days after the SWPPP revisions are implemented.

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

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
1	Antimony	µg/L	0.6	0.82	6.00							4300.00	6.00	No
2	Arsenic	µg/L	0.85676	17	10.00		340.00	150.00					10.00	Yes
3	Beryllium	µg/L	0.6	1.8	4.00							Narrative	4.00	No
4	Cadmium	µg/L	0.6	1.6	5.00		4.52	2.46				Narrative	2.46	No
5a	Chromium (III)	µg/L		9.9			1736.51	206.98				Narrative	206.98	No
5b	Chromium (VI)	µg/L	0.6	1.1	50.00		16.29	11.43				Narrative	11.43	No
6	Copper	µg/L	1.60124	52			14.00	9.33					9.33	Yes
7	Lead	µg/L	3.02145	88			81.65	3.18				Narrative	3.18	Yes
8	Mercury	µg/L	0.6		2.00		Reserved	Reserved				0.051	0.051	
9	Nickel	µg/L	1.24101	28	100.00		469.17	52.16				4600.00	52.16	No
10	Selenium	µg/L	2.38646	11	50.00		20.00	5.00				Narrative	5.00	Yes
11	Silver	µg/L	0.6	0.28			4.06						4.06	No
12	Thallium	µg/L	0.6	0.2	2.00							6.30	2.00	No
13	Zinc	µg/L	2.18377	430			119.82	119.82					119.82	Yes
14	Cyanide	µg/L	0.6	6.1	150.00		22.00	5.20				220000.00	5.20	Yes
15	Asbestos	Fibers/L			7.00								7.00	
16	2,3,7,8 TCDD	µg/L	1.89774	2.6E-07	0.00							0.000000014	0.000000014	Yes
17	Acrolein	µg/L		2.5								780	780	No
18	Acrylonitrile	µg/L										0.66	0.660	
19	Benzene	µg/L		0.25	1.00							71	1.0	No
20	Bromoform	µg/L		0.25								360	360.0	No
21	Carbon Tetrachloride	µg/L		0.25	0.50							4.4	0.50	No
22	Chlorobenzene	µg/L		0.61	70.00							21000	70	No
23	Chlorodibromomethane	µg/L		0.15								34	34.00	No
24	Chloroethane	µg/L		No Criteria									No Criteria	No Criteria
25	2-Chloroethylvinyl ether	µg/L		No Criteria									No Criteria	No Criteria
26	Chloroform	µg/L		No Criteria									No Criteria	No Criteria
27	Dichlorobromomethane	µg/L		0.19								46	46.00	No
28	1,1-Dichloroethane	µg/L		0.25	5.00								5.00	No
29	1,2-Dichloroethane	µg/L	0.6	0.15	0.50							99	0.50	No
30	1,1-Dichloroethylene	µg/L	0.6	0.25	6.00							3.2	3.200	No
31	1,2-Dichloropropane	µg/L		0.17	5.00							39	5.00	No
32	1,3-Dichloropropylene	µg/L		0.18	0.50							1700	1	No

Filename: SSFL RPA Outfalls 001-002-011-018

Page 1 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
33	Ethylbenzene	µg/L		0.25	300.00						29000	300	No	
34	Methyl Bromide	µg/L		0.22							4000	4000	No	
35	Methyl Chloride	µg/L		No Criteria							Narrative	No Criteria	No Criteria	
36	Methylene Chloride	µg/L		0.57	5.00						1600	5.0	No	
37	1,1,2,2-Tetrachloroethane	µg/L		0.2	1.00						11	1.00	No	
38	Tetrachloroethylene	µg/L		0.21	5.00						8.85	5.0	No	
39	Toluene	µg/L		0.23	150.00						200000	150	No	
40	1,2-Trans-Dichloroethylene	µg/L		0.24	10.00						140000	10	No	
41	1,1,1-Trichloroethane	µg/L		0.25	200.00						Narrative	200.00	No	
42	1,1,2-Trichloroethane	µg/L		0.17	5.00						42	5.0	No	
43	Trichloroethylene	µg/L	0.6	1.6	5.00						81	5.0	No	
44	Vinyl Chloride	µg/L		0.25	0.50						525	1	No	
45	2-Chlorophenol	µg/L		0.078							400	400	No	
46	2,4-Dichlorophenol	µg/L		0.091							790	790	No	
47	2,4-Dimethylphenol	µg/L		0.12							2300	2300	No	
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	µg/L		0.995							765	765.0	No	
49	2,4-Dinitrophenol	µg/L		3.88							14000	14000	No	
50	2-Nitrophenol	µg/L		No Criteria								No Criteria	No Criteria	
51	4-Nitrophenol	µg/L		No Criteria								No Criteria	No Criteria	
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	µg/L		No Criteria								No Criteria	No Criteria	
53	Pentachlorophenol	µg/L	0.6	1.3	1.00		5.44	4.17			8.2	1.00	Yes	
54	Phenol	µg/L		0.08							4600000	4600000	No	
55	2,4,6-Trichlorophenol	µg/L	0.6	0.068							6.5	6.5	No	
56	Acenaphthene	µg/L		0.081							2700	2700	No	
57	Acenaphthylene	µg/L		No Criteria								No Criteria	No Criteria	
58	Anthracene	µg/L		0.068							110000	110000	No	
59	Benzidine	µg/L	0.35437	5.49							0.00054	0.00054	Yes	
60	Benzo(a)Anthracene	µg/L									0.049	0.0490		
61	Benzo(a)Pyrene	µg/L			0.20						0.049	0.0490		
62	Benzo(b)Fluoranthene	µg/L		0.15							0.049	0.0490	Yes	
63	Benzo(ghi)Perylene	µg/L		No Criteria								No Criteria	No Criteria	

Filename: SSFL RPA Outfalls 001-002-011-018

Page 2 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
64	Benzo(k)Fluoranthene	µg/L										0.049	0.0490	
65	Bis(2-Chloroethoxy)Methan	µg/L		No Criteria									No Criteria	No Criteria
66	Bis(2-Chloroethyl)Ether	µg/L		0.0841								1.4	1.400	No
67	Bis(2-Chloroisopropyl)Ether	µg/L		0.087								170000	170000	No
68	Bis(2-Ethylhexyl)Phthalate	µg/L	0.6	3.9	4.00							5.9	4.0	No
69	4-Bromophenyl Phenyl Ethe	µg/L		No Criteria									No Criteria	No Criteria
70	Butylbenzyl Phthalate	µg/L		3.28								5200	5200	No
71	2-Chloronaphthalene	µg/L		0.0995								4300	4300	No
72	4-Chlorophenyl Phenyl Ethe	µg/L		No Criteria									No Criteria	No Criteria
73	Chrysene	µg/L										0.049	0.0490	
74	Dibenzo(a,h)Anthracene	µg/L										0.049	0.0490	
75	1,2-Dichlorobenzene	µg/L		0.11	600.00							17000	600	No
76	1,3-Dichlorobenzene	µg/L		0.11								2600	2600	No
77	1,4-Dichlorobenzene	µg/L		0.25	5.00							2600	5	No
78	3,3-Dichlorobenzidine	µg/L	0.26539	1.1								0.077	0.08	Yes
79	Diethyl Phthalate	µg/L		0.99								120000	120000	No
80	Dimethyl Phthalate	µg/L		0.11								2900000	2900000	No
81	Di-n-Butyl Phthalate	µg/L		0.498								12000	12000	No
82	2,4-Dinitrotoluene	µg/L	0.6	0.12								9.10	9.10	No
83	2,6-Dinitrotoluene	µg/L		No Criteria									No Criteria	No Criteria
84	Di-n-Octyl Phthalate	µg/L		No Criteria									No Criteria	No Criteria
85	1,2-Diphenylhydrazine	µg/L		0.065								0.54	0.540	No
86	Fluoranthene	µg/L		0.091								370	370	No
87	Fluorene	µg/L		0.076								14000	14000	No
88	Hexachlorobenzene	µg/L			1.00							0.00077	0.00077	
89	Hexachlorobutadiene	µg/L		0.14								50	50.00	No
90	Hexachlorocyclopentadiene	µg/L		0.092	50.00							17000	50	No
91	Hexachloroethane	µg/L		0.12								8.9	8.9	No
92	Indeno(1,2,3-cd)Pyrene	µg/L	0.6	0.14								0.049	0.0490	Yes
93	Isophorone	µg/L		0.083								600	600.0	No
94	Naphthalene	µg/L		No Criteria									No Criteria	No Criteria
95	Nitrobenzene	µg/L		0.092								1900	1900	No
96	N-Nitrosodimethylamine	µg/L	0.6	0.13								8.10	8.10000	No

Filename: SSFL RPA Outfalls 001-002-011-018

Page 3 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
97	N-Nitrosodi-n-Propylamine	ug/L		0.065							1.40	1.400	No	
98	N-Nitrosodiphenylamine	ug/L		0.22							16	16.0	No	
99	Phenanthrene	ug/L		No Criteria								No Criteria	No Criteria	
100	Pyrene	ug/L		0.075							11000	11000	No	
101	1,2,4-Trichlorobenzene	ug/L		0.12	5.00							5.00	No	
102	Aldrin	ug/L					3.00				0.00014	0.00014		
103	alpha-BHC	ug/L	0.6	0.0041							0.013	0.0130	No	
104	beta-BHC	ug/L		0.0017							0.046	0.046	No	
105	gamma-BHC	ug/L		0.0045	0.20		0.95				0.063	0.063	No	
106	delta-BHC	ug/L		No Criteria								No Criteria	No Criteria	
107	Chlordane	ug/L			0.10		2.4	0.0043			0.00059	0.00059		
108	4,4'-DDT	ug/L					1.1	0.001			0.00059	0.00059		
109	4,4'-DDE (linked to DDT)	ug/L	0.6	0.0035							0.00059	0.00059	Yes	
110	4,4'-DDD	ug/L		0.0008							0.00084	0.00084	No	
111	Dieldrin	ug/L					0.24	0.056			0.00014	0.00014		
112	alpha-Endosulfan	ug/L		0.0007			0.22	0.056			240	0.0560	No	
113	beta-Endosulfan	ug/L		0.0005			0.22	0.056			240	0.0560	No	
114	Endosulfan Sulfate	ug/L		0.0006							240	240	No	
115	Endrin	ug/L		0.0007	2.00		0.086	0.036			0.81	0.0360	No	
116	Endrin Aldehyde	ug/L		0.011							0.81	0.81	No	
117	Heptachlor	ug/L	0.6	0.0012	0.01		0.52	0.0038			0.00021	0.00021	Yes	
118	Heptachlor Epoxide	ug/L			0.01		0.52	0.0038			0.00011	0.00011		
119-125	PCBs sum (2)	ug/L			0.50			0.014			0.00017	0.00017		
126	Toxaphene	ug/L			3.00		0.73	0.0002			0.00075	0.0002		

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR Water Quality Criteria

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
1	Antimony	No	N					No detected value of B, Step 7		No
2	Arsenic	Yes	N					No detected value of B, Step 7		Yes
3	Beryllium	No	N					No detected value of B, Step 7		No
4	Cadmium	No	N					No detected value of B, Step 7		No
5a	Chromium (III)	No	N					No detected value of B, Step 7		No
5b	Chromium (VI)	No	N					No detected value of B, Step 7		No
6	Copper	Yes	N					No detected value of B, Step 7		Yes
7	Lead	Yes	N					No detected value of B, Step 7		Yes
8	Mercury		N					No detected value of B, Step 7		No
9	Nickel	No	N					No detected value of B, Step 7		No
10	Selenium	Yes	N					No detected value of B, Step 7		Yes
11	Silver	No	N					No detected value of B, Step 7		No
12	Thallium	No	N					No detected value of B, Step 7		No
13	Zinc	Yes	N					No detected value of B, Step 7		Yes
14	Cyanide	Yes	N					No detected value of B, Step 7		Yes
15	Asbestos		N					No detected value of B, Step 7		Ud
16	2,3,7,8 TCDD	Yes	N					No detected value of B, Step 7		Yes
17	Acrolein	No	N					No detected value of B, Step 7		No
18	Acrylonitrile		N					No detected value of B, Step 7		No
19	Benzene	No	N					No detected value of B, Step 7		No
20	Bromoform	No	N					No detected value of B, Step 7		No
21	Carbon Tetrachloride	No	N					No detected value of B, Step 7		No
22	Chlorobenzene	No	N					No detected value of B, Step 7		No
23	Chlorodibromomethane	No	N					No detected value of B, Step 7		No
24	Chloroethane	No Criteria	N					No Criteria	No Criteria	Uc
25	2-Chloroethylvinyl ether	No Criteria	N					No Criteria	No Criteria	Uc
26	Chloroform	No Criteria	N					No Criteria	No Criteria	Uc
27	Dichlorobromomethane	No	N					No detected value of B, Step 7		No
28	1,1-Dichloroethane	No	N					No detected value of B, Step 7		No
29	1,2-Dichloroethane	No	N					No detected value of B, Step 7		No
30	1,1-Dichloroethylene	No	N					No detected value of B, Step 7		No
31	1,2-Dichloropropane	No	N					No detected value of B, Step 7		No
32	1,3-Dichloropropylene	No	N					No detected value of B, Step 7		No

Filename: SSFL RPA Outfalls 001-002-011-018

Page 5 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
33	Ethylbenzene	No	N					No detected value of B, Step 7		No
34	Methyl Bromide	No	N					No detected value of B, Step 7		No
35	Methyl Chloride	No Criteria	N					No Criteria	No Criteria	Uc
36	Methylene Chloride	No	N					No detected value of B, Step 7		No
37	1,1,2,2-Tetrachloroethane	No	N					No detected value of B, Step 7		No
38	Tetrachloroethylene	No	N					No detected value of B, Step 7		No
39	Toluene	No	N					No detected value of B, Step 7		No
40	1,2-Trans-Dichloroethylene	No	N					No detected value of B, Step 7		No
41	1,1,1-Trichloroethane	No	N					No detected value of B, Step 7		No
42	1,1,2-Trichloroethane	No	N					No detected value of B, Step 7		No
43	Trichloroethylene	No	N					No detected value of B, Step 7		No
44	Vinyl Chloride	No	N					No detected value of B, Step 7		No
45	2-Chlorophenol	No	N					No detected value of B, Step 7		No
46	2,4-Dichlorophenol	No	N					No detected value of B, Step 7		No
47	2,4-Dimethylphenol	No	N					No detected value of B, Step 7		No
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	No	N					No detected value of B, Step 7		No
49	2,4-Dinitrophenol	No	N					No detected value of B, Step 7		No
50	2-Nitrophenol	No Criteria	N					No Criteria	No Criteria	Uc
51	4-Nitrophenol	No Criteria	N					No Criteria	No Criteria	Uc
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria	N					No Criteria	No Criteria	Uc
53	Pentachlorophenol	Yes	N					No detected value of B, Step 7		Yes
54	Phenol	No	N					No detected value of B, Step 7		No
55	2,4,6-Trichlorophenol	No	N					No detected value of B, Step 7		No
56	Acenaphthene	No	N					No detected value of B, Step 7		No
57	Acenaphthylene	No Criteria	N					No Criteria	No Criteria	Uc
58	Anthracene	No	N					No detected value of B, Step 7		No
59	Benzidine	Yes	N					No detected value of B, Step 7		Yes
60	Benzo(a)Anthracene		N					No detected value of B, Step 7		No
61	Benzo(a)Pyrene		N					No detected value of B, Step 7		No
62	Benzo(b)Fluoranthene	Yes	N					No detected value of B, Step 7		Yes
63	Benzo(ghi)Perylene	No Criteria	N					No Criteria	No Criteria	Uc

Filename: SSFL RPA Outfalls 001-002-011-018

Page 6 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
64	Benzo(k)Fluoranthene		N					No detected value of B, Step 7		No
65	Bis(2-Chloroethoxy)Methan	No Criteria	N					No Criteria	No Criteria	Uc
66	Bis(2-Chloroethyl)Ether	No	N					No detected value of B, Step 7		No
67	Bis(2-Chloroisopropyl)Ether	No	N					No detected value of B, Step 7		No
68	Bis(2-Ethylhexyl)Phthalate	No	N					No detected value of B, Step 7		No
69	4-Bromophenyl Phenyl Et	No Criteria	N					No Criteria	No Criteria	Uc
70	Butylbenzyl Phthalate	No	N					No detected value of B, Step 7		No
71	2-Chloronaphthalene	No	N					No detected value of B, Step 7		No
72	4-Chlorophenyl Phenyl Et	No Criteria	N					No Criteria	No Criteria	Uc
73	Chrysene		N					No detected value of B, Step 7		No
74	Dibenzo(a,h)Anthracene		N					No detected value of B, Step 7		No
75	1,2-Dichlorobenzene	No	N					No detected value of B, Step 7		No
76	1,3-Dichlorobenzene	No	N					No detected value of B, Step 7		No
77	1,4-Dichlorobenzene	No	N					No detected value of B, Step 7		No
78	3,3-Dichlorobenzidine	Yes	N					No detected value of B, Step 7		Yes
79	Diethyl Phthalate	No	N					No detected value of B, Step 7		No
80	Dimethyl Phthalate	No	N					No detected value of B, Step 7		No
81	Di-n-Butyl Phthalate	No	N					No detected value of B, Step 7		No
82	2,4-Dinitrotoluene	No	N					No detected value of B, Step 7		No
83	2,6-Dinitrotoluene	No Criteria	N					No Criteria	No Criteria	Uc
84	Di-n-Octyl Phthalate	No Criteria	N					No Criteria	No Criteria	Uc
85	1,2-Diphenylhydrazine	No	N					No detected value of B, Step 7		No
86	Fluoranthene	No	N					No detected value of B, Step 7		No
87	Fluorene	No	N					No detected value of B, Step 7		No
88	Hexachlorobenzene		N					No detected value of B, Step 7		No
89	Hexachlorobutadiene	No	N					No detected value of B, Step 7		No
90	Hexachlorocyclopentadiene	No	N					No detected value of B, Step 7		No
91	Hexachloroethane	No	N					No detected value of B, Step 7		No
92	Indeno(1,2,3-cd)Pyrene	Yes	N					No detected value of B, Step 7		Yes
93	Isophorone	No	N					No detected value of B, Step 7		No
94	Naphthalene	No Criteria	N					No Criteria	No Criteria	Uc
95	Nitrobenzene	No	N					No detected value of B, Step 7		No
96	N-Nitrosodimethylamine	No	N					No detected value of B, Step 7		No

Filename: SSFL RPA Outfalls 001-002-011-018

Page 7 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
97	N-Nitrosodi-n-Propylamine	No	N					No detected value of B, Step 7		No
98	N-Nitrosodiphenylamine	No	N					No detected value of B, Step 7		No
99	Phenanthrene	No Criteria	N					No Criteria	No Criteria	Uc
100	Pyrene	No	N					No detected value of B, Step 7		No
101	1,2,4-Trichlorobenzene	No	N					No detected value of B, Step 7		No
102	Aldrin		N					No detected value of B, Step 7		No
103	alpha-BHC	No	N					No detected value of B, Step 7		No
104	beta-BHC	No	N					No detected value of B, Step 7		No
105	gamma-BHC	No	N					No detected value of B, Step 7		No
106	delta-BHC	No Criteria	N					No Criteria	No Criteria	Uc
107	Chlordane		N					No detected value of B, Step 7		No
108	4,4'-DDT		N					No detected value of B, Step 7		No
109	4,4'-DDE (linked to DDT)	Yes	N					No detected value of B, Step 7		Yes
110	4,4'-DDD	No	N					No detected value of B, Step 7		No
111	Dieldrin		N					No detected value of B, Step 7		No
112	alpha-Endosulfan	No	N					No detected value of B, Step 7		No
113	beta-Endosulfan	No	N					No detected value of B, Step 7		No
114	Endosulfan Sulfate	No	N					No detected value of B, Step 7		No
115	Endrin	No	N					No detected value of B, Step 7		No
116	Endrin Aldehyde	No	N					No detected value of B, Step 7		No
117	Heptachlor	Yes	N					No detected value of B, Step 7		Yes
118	Heptachlor Epoxide		N					No detected value of B, Step 7		No
119-125	PCBs sum (2)		N					No detected value of B, Step 7		No
126	Toxaphene		N					No detected value of B, Step 7		No

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
1	Antimony	Ud;MEC<C & no B	4300	2.01	8626.61338	0.32	1.93	0.53		1.93	1.55
2	Arsenic	MEC>=C		2.36		0.23	2.34	0.42	62.81	2.34	1.81
3	Beryllium	Ud;MEC<C & no B	Narrative	2.01		0.32	1.28	0.53		1.28	1.55
4	Cadmium	Ud;MEC<C & no B	Narrative	2.01		0.32	1.45	0.53	1.30	1.30	1.55
5a	Chromium (III)	Ud;MEC<C & no B									
5b	Chromium (VI)	Ud;MEC<C & no B	Narrative	2.01		0.32	5.23	0.53	6.03	5.23	1.55
6	Copper	MEC>=C		2.93		0.14	1.92	0.25	2.33	1.92	2.48
7	Lead	MEC>=C	Narrative	3.26		0.09	7.54	0.14	0.46	0.46	3.32
8	Mercury	UD;Effluent ND;MDL>C & No B	0.051	2.01	0.102						1.55
9	Nickel	Ud;MEC<C & no B	4600	2.73	12550	0.17	79.15	0.31	16.28	16.28	2.17
10	Selenium	MEC>=C	Narrative	3.16		0.10	2.09	0.17	0.87	0.87	3.02
11	Silver	Ud;MEC<C & no B		2.01		0.32	1.30	0.53		1.30	1.55
12	Thallium	Ud;MEC<C & no B	6.3	2.01	12.63899	0.32	0.64	0.53		0.64	1.55
13	Zinc	MEC>=C		3.12		0.11	13.24	0.19	22.59	13.24	2.90
14	Cyanide	MEC>=C	220000	2.01	441362	0.32	7.06	0.53	2.74	2.74	1.55
15	Asbestos	No effluent data & no B									
16	2,3,7,8 TCDD	MEC>=C	1.40E-08	3.04	4.26E-08	0.12	0.00	0.21		0.00	2.71
17	Acrolein	Ud;MEC<C & no B									
18	Acrylonitrile	UD;Effluent ND;MDL>C & No B									
19	Benzene	Ud;MEC<C & no B									
20	Bromoform	Ud;MEC<C & no B									
21	Carbon Tetrachloride	Ud;MEC<C & no B									
22	Chlorobenzene	Ud;MEC<C & no B									
23	Chlorodibromomethane	Ud;MEC<C & no B									
24	Chloroethane	No Criteria									
25	2-Chloroethylvinyl ether	No Criteria									
26	Chloroform	No Criteria									
27	Dichlorobromomethane	Ud;MEC<C & no B									
28	1,1-Dichloroethane	Ud;MEC<C & no B									
29	1,2-Dichloroethane	Ud;MEC<C & no B	99	2.01	198.61273	0.32	0.16	0.53		0.16	1.55
30	1,1-Dichloroethylene	Ud;MEC<C & no B	3.2	2.01	6.4	0.32	1.93	0.53		1.93	1.55
31	1,2-Dichloropropane	Ud;MEC<C & no B									
32	1,3-Dichloropropylene	Ud;MEC<C & no B									

Filename: SSFL RPA Outfalls 001-002-011-018

Page 9 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46.

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
33	Ethylbenzene	Ud; MEC<C & no B									
34	Methyl Bromide	Ud; MEC<C & no B									
35	Methyl Chloride	No Criteria									
36	Methylene Chloride	Ud; MEC<C & no B									
37	1,1,2,2-Tetrachloroethane	Ud; MEC<C & no B									
38	Tetrachloroethylene	Ud; MEC<C & no B									
39	Toluene	Ud; MEC<C & no B									
40	1,2-Trans-Dichloroethylene	Ud; MEC<C & no B									
41	1,1,1-Trichloroethane	Ud; MEC<C & no B									
42	1,1,2-Trichloroethane	Ud; MEC<C & no B									
43	Trichloroethylene	Ud; MEC<C & no B	81	2.01	162.50132	0.32	1.61	0.53		1.61	1.55
44	Vinyl Chloride	Ud; MEC<C & no B									
45	2-Chlorophenol	Ud; MEC<C & no B									
46	2,4-Dichlorophenol	Ud; MEC<C & no B									
47	2,4-Dimethylphenol	Ud; MEC<C & no B									
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	Ud; MEC<C & no B									
49	2,4-Dinitrophenol	Ud; MEC<C & no B									
50	2-Nitrophenol	No Criteria									
51	4-Nitrophenol	No Criteria									
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria									
53	Pentachlorophenol	MEC>=C	8.2	2.01	16.45075	0.32	0.32	0.53	2.20	0.32	1.55
54	Phenol	Ud; MEC<C & no B									
55	2,4,6-Trichlorophenol	Ud; MEC<C & no B	6.5	2.01	13						1.55
56	Acenaphthene	Ud; MEC<C & no B									
57	Acenaphthylene	No Criteria									
58	Anthracene	Ud; MEC<C & no B									
59	Benzidine	MEC>=C	0.00054	1.60	0.00086						1.31
60	Benzo(a)Anthracene	UD; Effluent ND, MDL>C & No B									
61	Benzo(a)Pyrene	UD; Effluent ND, MDL>C & No B									
62	Benzo(b)Fluoranthene	MEC>=C									
63	Benzo(ghi)Perylene	No Criteria									

Filename: SSFL RPA Outfalls 001-002-011-018

Page 10 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
64	Benzo(k)Fluoranthene	UD; Effluent ND, MDL>C & No B									
65	Bis(2-Chloroethoxy)Methane	No Criteria									
66	Bis(2-Chloroethyl)Ether	Ud; MEC<C & no B									
67	Bis(2-Chloroisopropyl)Ether	Ud; MEC<C & no B									
68	Bis(2-Ethylhexyl)Phthalate	Ud; MEC<C & no B	5.9	2.01	11.83652	0.32	1.28	0.53		1.28	1.55
69	4-Bromophenyl Phenyl Ether	No Criteria									
70	Butylbenzyl Phthalate	Ud; MEC<C & no B									
71	2-Chloronaphthalene	Ud; MEC<C & no B									
72	4-Chlorophenyl Phenyl Ether	No Criteria									
73	Chrysene	UD; Effluent ND, MDL>C & No B									
74	Dibenzo(a,h)Anthracene	UD; Effluent ND, MDL>C & No B									
75	1,2-Dichlorobenzene	Ud; MEC<C & no B									
76	1,3-Dichlorobenzene	Ud; MEC<C & no B									
77	1,4-Dichlorobenzene	Ud; MEC<C & no B									
78	3,3-Dichlorobenzidine	MEC>=C	0.077	1.44	0.11083						1.23
79	Diethyl Phthalate	Ud; MEC<C & no B									
80	Dimethyl Phthalate	Ud; MEC<C & no B									
81	Di-n-Butyl Phthalate	Ud; MEC<C & no B									
82	2,4-Dinitrotoluene	Ud; MEC<C & no B	9.1	2.01	18.3						1.55
83	2,6-Dinitrotoluene	No Criteria									
84	Di-n-Octyl Phthalate	No Criteria									
85	1,2-Diphenylhydrazine	Ud; MEC<C & no B									
86	Fluoranthene	Ud; MEC<C & no B									
87	Fluorene	Ud; MEC<C & no B									
88	Hexachlorobenzene	UD; Effluent ND, MDL>C & No B									
89	Hexachlorobutadiene	Ud; MEC<C & no B									
90	Hexachlorocyclopentadiene	Ud; MEC<C & no B									
91	Hexachloroethane	Ud; MEC<C & no B									
92	Indeno(1,2,3-cd)Pyrene	MEC>=C	0.049	2.01	0.09830						1.55
93	Isophorone	Ud; MEC<C & no B									
94	Naphthalene	No Criteria									
95	Nitrobenzene	Ud; MEC<C & no B									
96	N-Nitrosodimethylamine	Ud; MEC<C & no B	8.1	2.01	16.3						1.55

Filename: SSFL RPA Outfalls 001-002-011-018

Page 11 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
97	N-Nitrosodi-n-Propylamine	Ud; MEC<C & no B									
98	N-Nitrosodiphenylamine	Ud; MEC<C & no B									
99	Phenanthrene	No Criteria									
100	Pyrene	Ud; MEC<C & no B									
101	1,2,4-Trichlorobenzene	Ud; MEC<C & no B									
102	Aldrin	UD; Effluent ND, MDL>C & No B									
103	alpha-BHC	Ud; MEC<C & no B	0.013	2.01	0.026						1.55
104	beta-BHC	Ud; MEC<C & no B									
105	gamma-BHC	Ud; MEC<C & no B									
106	delta-BHC	No Criteria									
107	Chlordane	UD; Effluent ND, MDL>C & No B									
108	4,4'-DDT	UD; Effluent ND, MDL>C & No B									
109	4,4'-DDE (linked to DDT)	MEC>=C	0.00059	2.01	0.00118						1.55
110	4,4'-DDD	Ud; MEC<C & no B									
111	Dieldrin	UD; Effluent ND, MDL>C & No B									
112	alpha-Endosulfan	Ud; MEC<C & no B									
113	beta-Endosulfan	Ud; MEC<C & no B									
114	Endosulfan Sulfate	Ud; MEC<C & no B									
115	Endrin	Ud; MEC<C & no B									
116	Endrin Aldehyde	Ud; MEC<C & no B									
117	Heptachlor	MEC>=C	0.00021	2.01	0.00042	0.32	0.17	0.53	0.00	0.00	1.55
118	Heptachlor Epoxide	UD; Effluent ND, MDL>C & No B									
119-125	PCBs sum (2)	UD; Effluent ND, MDL>C & No B									
126	Toxaphene	UD; Effluent ND, MDL>C & No B									

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest MDEL	
1	Antimony	2.99	3.11	6	6.0	Based on previous permit
2	Arsenic	4.23	4.27	10	10.0	Reasonable Potential
3	Beryllium	1.99	3.11	4	4.0	Based on previous limit
4	Cadmium	2.02	3.11	4.044274	3.1	TMDL
5a	Chromium (III)					No reasonable potential
5b	Chromium (VI)	8.12	3.11	16	16	Based on previous permit
6	Copper	4.77	7.29	14	67.5	TMDL
7	Lead	1.51	10.82	4.9	5.2	Reasonable Potential
8	Mercury		3.11		0.1	Based on previous permit
9	Nickel	35.36	5.93	96		No reasonable potential
10	Selenium	2.63	9.55	8.3	8.2	Reasonable Potential
11	Silver	2.02	3.11	4.058822	4.1	Based on previous permit
12	Thallium	1.00	3.11	2	2.0	Based on previous permit
13	Zinc	38.40	9.05	120	159	TMDL
14	Cyanide	4.26	3.11	8.5	8.5	Reasonable Potential
15	Asbestos					No Limit
16	2,3,7,8 TCDD	0.00	8.25	0.00003	2.8E-08	Reasonable Potential
17	Acrolein					No reasonable potential
18	Acrylonitrile					No reasonable potential
19	Benzene					No reasonable potential
20	Bromoform					No reasonable potential
21	Carbon Tetrachloride					No reasonable potential
22	Chlorobenzene					No reasonable potential
23	Chlorodibromomethane					No reasonable potential
24	Chloroethane					No reasonable potential
25	2-Chloroethylvinyl ether					No reasonable potential
26	Chloroform					No reasonable potential
27	Dichlorobromomethane					No reasonable potential
28	1,1-Dichloroethane					No reasonable potential
29	1,2-Dichloroethane	0.25	3.11	0.5	0.5	Based on previous permit
30	1,1-Dichloroethylene	2.99	3.11	6	6.0	Based on previous permit
31	1,2-Dichloropropane					No reasonable potential
32	1,3-Dichloropropylene					No reasonable potential

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest MDEL	
33	Ethylbenzene					No reasonable potential
34	Methyl Bromide					No reasonable potential
35	Methyl Chloride					No reasonable potential
36	Methylene Chloride					No reasonable potential
37	1,1,2,2-Tetrachloroethane					No reasonable potential
38	Tetrachloroethylene					No reasonable potential
39	Toluene					No reasonable potential
40	1,2-Trans-Dichloroethylene					No reasonable potential
41	1,1,1-Trichloroethane					No reasonable potential
42	1,1,2-Trichloroethane					No reasonable potential
43	Trichloroethylene	2.49	3.11	5	5	Based on previous permit
44	Vinyl Chloride					No reasonable potential
45	2-Chlorophenol					No reasonable potential
46	2,4-Dichlorophenol					No reasonable potential
47	2,4-Dimethylphenol					No reasonable potential
48	4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol)					No reasonable potential
49	2,4-Dinitrophenol					No reasonable potential
50	2-Nitrophenol					No reasonable potential
51	4-Nitrophenol					No reasonable potential
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)					No reasonable potential
53	Pentachlorophenol	0.50	3.11	1	1	Reasonable Potential
54	Phenol					No reasonable potential
55	2,4,6-Trichlorophenol		3.11		13	Based on previous permit
56	Acenaphthene					No reasonable potential
57	Acenaphthylene					No reasonable potential
58	Anthracene					No reasonable potential
59	Benzidine		2.10		0.00054	Reasonable Potential
60	Benzo(a)Anthracene					No reasonable potential
61	Benzo(a)Pyrene					No reasonable potential
62	Benzo(b)Fluoranthene					No reasonable potential
63	Benzo(ghi)Perylene					No reasonable potential

Filename: SSFL RPA Outfalls 001-002-011-018

Page 14 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest MDEL	
64	Benzo(k)Fluoranthene					No reasonable potential
65	Bis(2-Chloroethoxy)Methan					No reasonable potential
66	Bis(2-Chloroethyl)Ether					No reasonable potential
67	Bis(2-Chloroisopropyl)Ether					No reasonable potential
68	Bis(2-Ethylhexyl)Phthalate	1.99	3.11	4	4	Based on previous permit
69	4-Bromophenyl Phenyl Eth					No reasonable potential
70	Butylbenzyl Phthalate					No reasonable potential
71	2-Chloronaphthalene					No reasonable potential
72	4-Chlorophenyl Phenyl Eth					No reasonable potential
73	Chrysene					No reasonable potential
74	Dibenzo(a,h)Anthracene					No reasonable potential
75	1,2-Dichlorobenzene					No reasonable potential
76	1,3-Dichlorobenzene					No reasonable potential
77	1,4-Dichlorobenzene					No reasonable potential
78	3,3-Dichlorobenzidine		1.77		0.077	Reasonable Potential
79	Diethyl Phthalate					No reasonable potential
80	Dimethyl Phthalate					No reasonable potential
81	Di-n-Butyl Phthalate					No reasonable potential
82	2,4-Dinitrotoluene		3.11		18	Based on previous permit
83	2,6-Dinitrotoluene					No reasonable potential
84	Di-n-Octyl Phthalate					No reasonable potential
85	1,2-Diphenylhydrazine					No reasonable potential
86	Fluoranthene					No reasonable potential
87	Fluorene					No reasonable potential
88	Hexachlorobenzene					No reasonable potential
89	Hexachlorobutadiene					No reasonable potential
90	Hexachlorocyclopentadiene					No reasonable potential
91	Hexachloroethane					No reasonable potential
92	Indeno(1,2,3-cd)Pyrene		3.11		0.1	Reasonable Potential
93	Isophorone					No reasonable potential
94	Naphthalene					No reasonable potential
95	Nitrobenzene					No reasonable potential
96	N-Nitrosodimethylamine		3.11		18	Based on previous permit

Filename: SSFL RPA Outfalls 001-002-011-018

Page 15 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest MDEL	
97	N-Nitrosodi-n-Propylamine					No reasonable potential
98	N-Nitrosodiphenylamine					No reasonable potential
99	Phenanthrene					No reasonable potential
100	Pyrene					No reasonable potential
101	1,2,4-Trichlorobenzene					No reasonable potential
102	Aldrin					No reasonable potential
103	alpha-BHC		3.11		0.03	Based on previous permit
104	beta-BHC					No reasonable potential
105	gamma-BHC					No reasonable potential
106	delta-BHC					No reasonable potential
107	Chlordane					No reasonable potential
108	4,4'-DDT					No reasonable potential
109	4,4'-DDE (linked to DDT)		3.11		0.00059	Reasonable Potential
110	4,4'-DDD					No reasonable potential
111	Dieldrin					No reasonable potential
112	alpha-Endosulfan					No reasonable potential
113	beta-Endosulfan					No reasonable potential
114	Endosulfan Sulfate					No reasonable potential
115	Endrin					No reasonable potential
116	Endrin Aldehyde					No reasonable potential
117	Heptachlor	0.00	3.11	0.006242	0.00042	Reasonable Potential
118	Heptachlor Epoxide					No reasonable potential
119-125	PCBs sum (2)					No reasonable potential
126	Toxaphene					No reasonable potential

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
1	Antimony	µg/L	0.6	2.3	6.00						4300.00	6.00	No	
2	Arsenic	µg/L		1.5	10.00		340.00	150.00				10.00	No	
3	Beryllium	µg/L		0.26	4.00						Narrative	4.00	No	
4	Cadmium	µg/L	0.6	0.15	5.00		4.52	2.46			Narrative	2.46	No	
5a	Chromium (III)	µg/L		0.003			1736.51	206.98			Narrative	206.98	No	
5b	Chromium (VI)	µg/L		0.094	50.00		16.29	11.43			Narrative	11.43	No	
6	Copper	µg/L	0.5449	15			14.00	9.33				9.33	Yes	
7	Lead	µg/L	1.1788	9.5			81.65	3.18			Narrative	3.18	Yes	
8	Mercury	µg/L	0.6	0.11	2.00		Reserved	Reserved			0.051	0.051	Yes	
9	Nickel	µg/L	3.9096	170	100.00		469.17	52.16			4600.00	52.16	Yes	
10	Selenium	µg/L		0.95	50.00		20.00	5.00			Narrative	5.00	No	
11	Silver	µg/L		0.62			4.06					4.06	No	
12	Thallium	µg/L	0.6	0.14	2.00						6.30	2.00	No	
13	Zinc	µg/L	0.8218	41			119.82	119.82				119.82	No	
14	Cyanide	µg/L	0.6	1.4	150.00		22.00	5.20			220000.00	5.20	No	
15	Asbestos	Fibers/L	2.7899	75	7.00							7.00	Yes	
16	2,3,7,8 TCDD	µg/L	2.6744	2.3E-07	0.00						0.000000014	0.000000014	Yes	
17	Acrolein	µg/L		2.5							780	780	No	
18	Acrylonitrile	µg/L									0.66	0.660	No	
19	Benzene	µg/L		0.25	1.00						71	1.0	No	
20	Bromoform	µg/L		0.25							360	360.0	No	
21	Carbon Tetrachloride	µg/L		0.25	0.50						4.4	0.50	No	
22	Chlorobenzene	µg/L		0.19	70.00						21000	70	No	
23	Chlorodibromomethane	µg/L		0.15							34	34.00	No	
24	Chloroethane	µg/L		No Criteria								No Criteria	No Criteria	
25	2-Chloroethylvinyl ether	µg/L		No Criteria								No Criteria	No Criteria	
26	Chloroform	µg/L		No Criteria								No Criteria	No Criteria	
27	Dichlorobromomethane	µg/L		0.19							46	46.00	No	
28	1,1-Dichloroethane	µg/L		0.25	5.00							5.00	No	
29	1,2-Dichloroethane	µg/L		0.15	0.50						99	0.50	No	
30	1,1-Dichloroethylene	µg/L		0.25	6.00						3.2	3.200	No	
31	1,2-Dichloropropane	µg/L		0.17	5.00						39	5.00	No	
32	1,3-Dichloropropylene	µg/L		0.25	0.50						1700	1	No	

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 1 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
33	Ethylbenzene	µg/L		0.25	300.00							29000	300	No
34	Methyl Bromide	µg/L		0.22								4000	4000	No
35	Methyl Chloride	µg/L		No Criteria								Narrative	No Criteria	No Criteria
36	Methylene Chloride	µg/L		1.1	5.00							1600	5.0	No
37	1,1,2,2-Tetrachloroethane	µg/L		0.2	1.00							11	1.00	No
38	Tetrachloroethylene	µg/L		0.21	5.00							8.85	5.0	No
39	Toluene	µg/L		0.23	150.00							200000	150	No
40	1,2-Trans-Dichloroethylene	µg/L		0.24	10.00							140000	10	No
41	1,1,1-Trichloroethane	µg/L		0.25	200.00							Narrative	200.00	No
42	1,1,2-Trichloroethane	µg/L		0.17	5.00							42	5.0	No
43	Trichloroethylene	µg/L		0.17	5.00							81	5.0	No
44	Vinyl Chloride	µg/L		0.25	0.50							525	1	No
45	2-Chlorophenol	µg/L		0.108								400	400	No
46	2,4-Dichlorophenol	µg/L		0.216								790	790	No
47	2,4-Dimethylphenol	µg/L		0.541								2300	2300	No
48	4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol)	µg/L		1.08								765	765.0	No
49	2,4-Dinitrophenol	µg/L		1.08								14000	14000	No
50	2-Nitrophenol	µg/L		No Criteria									No Criteria	No Criteria
51	4-Nitrophenol	µg/L		No Criteria									No Criteria	No Criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	µg/L		No Criteria									No Criteria	No Criteria
53	Pentachlorophenol	µg/L	0.6	1.08	1.00		5.61	4.30				8.2	1.00	Yes
54	Phenol	µg/L		0.08								4600000	4600000	No
55	2,4,6-Trichlorophenol	µg/L		0.108								6.5	6.5	No
56	Acenaphthene	µg/L		0.091								2700	2700	No
57	Acenaphthylene	µg/L		No Criteria									No Criteria	No Criteria
58	Anthracene	µg/L		0.076								110000	110000	No
59	Benzidine	µg/L										0.00054	0.00054	
60	Benzo(a)Anthracene	µg/L										0.049	0.0490	
61	Benzo(a)Pyrene	µg/L			0.20							0.049	0.0490	
62	Benzo(b)Fluoranthene	µg/L		0.16								0.049	0.0490	Yes
63	Benzo(ghi)Perylene	µg/L		No Criteria									No Criteria	No Criteria

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 2 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
64	Benzo(k)Fluoranthene	µg/L										0.049	0.0490	
65	Bis(2-Chloroethoxy)Methan	µg/L		No Criteria									No Criteria	No Criteria
66	Bis(2-Chloroethyl)Ether	µg/L		0.049								1.4	1.400	No
67	Bis(2-Chloroisopropyl)Ether	µg/L		0.097								170000	170000	No
68	Bis(2-Ethylhexyl)Phthalate	µg/L	0.6	10.6	4.00							5.9	4.0	Yes
69	4-Bromophenyl Phenyl Ethe	µg/L		No Criteria									No Criteria	No Criteria
70	Butylbenzyl Phthalate	µg/L		0.6								5200	5200	No
71	2-Chloronaphthalene	µg/L		0.098								4300	4300	No
72	4-Chlorophenyl Phenyl Ethe	µg/L		No Criteria									No Criteria	No Criteria
73	Chrysene	µg/L										0.049	0.0490	
74	Dibenzo(a,h)Anthracene	µg/L										0.049	0.0490	
75	1,2-Dichlorobenzene	µg/L		0.11	600.00							17000	600	No
76	1,3-Dichlorobenzene	µg/L		0.11								2600	2600	No
77	1,4-Dichlorobenzene	µg/L		0.11	5.00							2600	5	No
78	3,3-Dichlorobenzidine	µg/L										0.077	0.08	
79	Diethyl Phthalate	µg/L		0.14								120000	120000	No
80	Dimethyl Phthalate	µg/L		0.16								2900000	2900000	No
81	Di-n-Butyl Phthalate	µg/L		1.15								12000	12000	No
82	2,4-Dinitrotoluene	µg/L		0.11								9.10	9.10	No
83	2,6-Dinitrotoluene	µg/L		No Criteria									No Criteria	No Criteria
84	Di-n-Octyl Phthalate	µg/L		No Criteria									No Criteria	No Criteria
85	1,2-Diphenylhydrazine	µg/L		0.073								0.54	0.540	No
86	Fluoranthene	µg/L		0.097								370	370	No
87	Fluorene	µg/L		0.085								14000	14000	No
88	Hexachlorobenzene	µg/L			1.00							0.00077	0.00077	
89	Hexachlorobutadiene	µg/L		0.15								50	50.00	No
90	Hexachlorocyclopentadiene	µg/L		1.91	50.00							17000	50	No
91	Hexachloroethane	µg/L		0.12								8.9	8.9	No
92	Indeno(1,2,3-cd)Pyrene	µg/L										0.049	0.0490	
93	Isophorone	µg/L		0.093								600	600.0	No
94	Naphthalene	µg/L		No Criteria									No Criteria	No Criteria
95	Nitrobenzene	µg/L		0.1								1900	1900	No
96	N-Nitrosodimethylamine	µg/L		0.15								8.10	8.10000	No

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 3 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
97	N-Nitrosodi-n-Propylamine	ug/L		0.066								1.40	1.400	No
98	N-Nitrosodiphenylamine	ug/L		0.1								16	16.0	No
99	Phenanthrene	ug/L		No Criteria									No Criteria	No Criteria
100	Pyrene	ug/L		0.083								11000	11000	No
101	1,2,4-Trichlorobenzene	ug/L		0.12	5.00								5.00	No
102	Aldrin	ug/L					3.00					0.00014	0.00014	
103	alpha-BHC	ug/L		0.0025								0.013	0.0130	No
104	beta-BHC	ug/L		0.0017								0.046	0.046	No
105	gamma-BHC	ug/L		0.00066	0.20		0.95					0.063	0.063	No
106	delta-BHC	ug/L		No Criteria									No Criteria	No Criteria
107	Chlordane	ug/L			0.10		2.4	0.0043				0.00059	0.00059	
108	4,4'-DDT	ug/L					1.1	0.001				0.00059	0.00059	
109	4,4'-DDE (linked to DDT)	ug/L		0.0005								0.00059	0.00059	No
110	4,4'-DDD	ug/L		0.0008								0.00084	0.00084	No
111	Dieldrin	ug/L					0.24	0.056				0.00014	0.00014	
112	alpha-Endosulfan	ug/L		0.0007			0.22	0.056				240	0.0560	No
113	beta-Endosulfan	ug/L		0.0005			0.22	0.056				240	0.0560	No
114	Endosulfan Sulfate	ug/L		0.0006								240	240	No
115	Endrin	ug/L		0.0007	2.00		0.086	0.036				0.81	0.0360	No
116	Endrin Aldehyde	ug/L		0.0019								0.81	0.81	No
117	Heptachlor	ug/L			0.01		0.52	0.0038				0.00021	0.00021	
118	Heptachlor Epoxide	ug/L			0.01		0.52	0.0038				0.00011	0.00011	
119-125	PCBs sum (2)	ug/L			0.50			0.014				0.00017	0.00017	
126	Toxaphene	ug/L			3.00		0.73	0.0002				0.00075	0.0002	

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR Water Quality Criteria

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								Tier 3 - other info. ?	RPA Result - Need Limit?
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required			
1	Antimony	No	Y	N		0.95		B<=C, Step 7		No	
2	Arsenic	No	Y	N		2.5		B<=C, Step 7		No	
3	Beryllium	No	Y	Y	0.25		N	No detected value of B, Step 7		No	
4	Cadmium	No	Y	N		0.32		B<=C, Step 7		No	
5a	Chromium (III)	No	Y	Y	0.003		N	No detected value of B, Step 7		No	
5b	Chromium (VI)	No	Y	N		0.62		B<=C, Step 7		No	
6	Copper	Yes	Y	N		9.9		Limit required, B>C & pollutant de		Yes	
7	Lead	Yes	Y	N		2.7		B<=C, Step 7		Yes	
8	Mercury	Yes	Y	N		0.12		Limit required, B>C & pollutant de		Yes	
9	Nickel	Yes	Y	N		8.2		B<=C, Step 7		Yes	
10	Selenium	No	Y	N		3.3		B<=C, Step 7		No	
11	Silver	No	Y	Y	0.23		N	No detected value of B, Step 7		No	
12	Thallium	No	Y	Y	0.11		N	No detected value of B, Step 7		No	
13	Zinc	No	Y	N		45		B<=C, Step 7		No	
14	Cyanide	No	Y	Y	2.5		N	No detected value of B, Step 7		No	
15	Asbestos	Yes	Y	Y	0.2		N	No detected value of B, Step 7		Yes	
16	2,3,7,8 TCDD	Yes	Y	N		3.42E-08		Limit required, B>C & pollutant de		Yes	
17	Acrolein	No	Y	Y	2.5		N	No detected value of B, Step 7		No	
18	Acrylonitrile		Y	Y	1		Y	No detected value of B, Step 7		No	
19	Benzene	No	Y	Y	0.25		N	No detected value of B, Step 7		No	
20	Bromoform	No	Y	Y	0.25		N	No detected value of B, Step 7		No	
21	Carbon Tetrachloride	No	Y	Y	0.25		N	No detected value of B, Step 7		No	
22	Chlorobenzene	No	Y	Y	0.19		N	No detected value of B, Step 7		No	
23	Chlorodibromomethane	No	Y	Y	0.15		N	No detected value of B, Step 7		No	
24	Chloroethane	No Criteria	Y	Y	0.29		N	No Criteria	No Criteria	Uc	
25	2-Chloroethylvinyl ether	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	
26	Chloroform	No Criteria	Y	Y				No Criteria	No Criteria	Uc	
27	Dichlorobromomethane	No	Y	Y	0.19		N	No detected value of B, Step 7		No	
28	1,1-Dichloroethane	No	Y	Y	0.25		N	No detected value of B, Step 7		No	
29	1,2-Dichloroethane	No	Y	Y	0.15		N	No detected value of B, Step 7		No	
30	1,1-Dichloroethylene	No	Y	Y	0.25		N	No detected value of B, Step 7		No	
31	1,2-Dichloropropane	No	Y	Y	0.17		N	No detected value of B, Step 7		No	
32	1,3-Dichloropropylene	No	Y	Y	0.18		N	No detected value of B, Step 7		No	

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 5 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
33	Ethylbenzene	No	Y	Y	0.25		N	No detected value of B, Step 7		No
34	Methyl Bromide	No	Y	Y	0.25		N	No detected value of B, Step 7		No
35	Methyl Chloride	No Criteria	Y	Y	0.25		N	No Criteria	No Criteria	Uc
36	Methylene Chloride	No	Y	Y	0.57		N	No detected value of B, Step 7		No
37	1,1,2,2-Tetrachloroethane	No	Y	Y	0.2		N	No detected value of B, Step 7		No
38	Tetrachloroethylene	No	Y	Y	0.21		N	No detected value of B, Step 7		No
39	Toluene	No	Y	Y	0.23		N	No detected value of B, Step 7		No
40	1,2-Trans-Dichloroethylene	No	Y	Y	0.24		N	No detected value of B, Step 7		No
41	1,1,1-Trichloroethane	No	Y	Y	0.25		N	No detected value of B, Step 7		No
42	1,1,2-Trichloroethane	No	Y	Y	0.17		N	No detected value of B, Step 7		No
43	Trichloroethylene	No	Y	Y	0.17		N	No detected value of B, Step 7		No
44	Vinyl Chloride	No	Y	Y	0.25		N	No detected value of B, Step 7		No
45	2-Chlorophenol	No	Y	Y	0.091		N	No detected value of B, Step 7		No
46	2,4-Dichlorophenol	No	Y	Y	0.13		N	No detected value of B, Step 7		No
47	2,4-Dimethylphenol	No	Y	Y	0.12		N	No detected value of B, Step 7		No
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	No	Y	Y	1.06		N	No detected value of B, Step 7		No
49	2,4-Dinitrophenol	No	Y	Y	1.06		N	No detected value of B, Step 7		No
50	2-Nitrophenol	No Criteria	Y	Y	0.212		N	No Criteria	No Criteria	Uc
51	4-Nitrophenol	No Criteria	Y	Y	2.11		N	No Criteria	No Criteria	Uc
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria	Y	Y	0.13		N	No Criteria	No Criteria	Uc
53	Pentachlorophenol	Yes	Y	Y	0.8		N	No detected value of B, Step 7		Yes
54	Phenol	No	Y	Y	0.5		N	No detected value of B, Step 7		No
55	2,4,6-Trichlorophenol	No	Y	Y	0.106		N	No detected value of B, Step 7		No
56	Acenaphthene	No	Y	Y	0.094		N	No detected value of B, Step 7		No
57	Acenaphthylene	No Criteria	Y	Y	0.106		N	No Criteria	No Criteria	Uc
58	Anthracene	No	Y	Y	0.08		N	No detected value of B, Step 7		No
59	Benzidine		Y	Y	2.6		Y	No detected value of B, Step 7		No
60	Benzo(a)Anthracene		Y	Y	0.12		Y	No detected value of B, Step 7		No
61	Benzo(a)Pyrene		Y	Y	0.15		Y	No detected value of B, Step 7		No
62	Benzo(b)Fluoranthene	Yes	Y	N		0.11		Limit required, B>C & pollutant de		Yes
63	Benzo(ghi)Perylene	No Criteria	Y	Y	0.1		N	No Criteria	No Criteria	Uc

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 6 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
64	Benzo(k)Fluoranthene		Y	Y	0.106		Y	No detected value of B, Step 7		No
65	Bis(2-Chloroethoxy)Methan	No Criteria	Y	Y	0.1		N	No Criteria	No Criteria	Uc
66	Bis(2-Chloroethyl)Ether	No	Y	Y	0.099		N	No detected value of B, Step 7		No
67	Bis(2-Chloroisopropyl)Ether	No	Y	Y	0.106		N	No detected value of B, Step 7		No
68	Bis(2-Ethylhexyl)Phthalate	Yes	Y	Y	2.11		N	No detected value of B, Step 7		Yes
69	4-Bromophenyl Phenyl Et	No Criteria	Y	Y	0.095		N	No Criteria	No Criteria	Uc
70	Butylbenzyl Phthalate	No	Y	Y	0.64		N	No detected value of B, Step 7		No
71	2-Chloronaphthalene	No	Y	Y	0.106		N	No detected value of B, Step 7		No
72	4-Chlorophenyl Phenyl Et	No Criteria	Y	Y	0.106		N	No Criteria	No Criteria	Uc
73	Chrysene		Y	Y	0.106		Y	No detected value of B, Step 7		No
74	Dibenzo(a,h)Anthracene		Y	Y	0.15		Y	No detected value of B, Step 7		No
75	1,2-Dichlorobenzene	No	Y	Y	0.11		N	No detected value of B, Step 7		No
76	1,3-Dichlorobenzene	No	Y	Y	0.11		N	No detected value of B, Step 7		No
77	1,4-Dichlorobenzene	No	Y	Y	0.11		N	No detected value of B, Step 7		No
78	3,3-Dichlorobenzidine		Y	Y	0.106		Y	No detected value of B, Step 7		No
79	Diethyl Phthalate	No	Y	Y	0.17		N	No detected value of B, Step 7		No
80	Dimethyl Phthalate	No	Y	Y	0.093		N	No detected value of B, Step 7		No
81	Di-n-Butyl Phthalate	No	Y	Y	0.529		N	No detected value of B, Step 7		No
82	2,4-Dinitrotoluene	No	Y	Y	0.11		N	No detected value of B, Step 7		No
83	2,6-Dinitrotoluene	No Criteria	Y	Y	0.17		N	No Criteria	No Criteria	Uc
84	Di-n-Octyl Phthalate	No Criteria	Y	Y	0.51		N	No Criteria	No Criteria	Uc
85	1,2-Diphenylhydrazine	No	Y	Y	0.086		N	No detected value of B, Step 7		No
86	Fluoranthene	No	Y	Y	0.096		N	No detected value of B, Step 7		No
87	Fluorene	No	Y	Y	0.09		N	No detected value of B, Step 7		No
88	Hexachlorobenzene		Y	Y	0.106		Y	No detected value of B, Step 7		No
89	Hexachlorobutadiene	No	Y	Y	0.14		N	No detected value of B, Step 7		No
90	Hexachlorocyclopentadiene	No	Y	Y	0.15		N	No detected value of B, Step 7		No
91	Hexachloroethane	No	Y	Y	0.12		N	No detected value of B, Step 7		No
92	Indeno(1,2,3-cd)Pyrene		Y	Y	0.12		Y	No detected value of B, Step 7		No
93	Isophorone	No	Y	Y	0.094		N	No detected value of B, Step 7		No
94	Naphthalene	No Criteria	Y	Y	0.0529		N	No Criteria	No Criteria	Uc
95	Nitrobenzene	No	Y	Y	0.14		N	No detected value of B, Step 7		No
96	N-Nitrosodimethylamine	No	Y	Y	0.18		N	No detected value of B, Step 7		No

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 7 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
97	N-Nitrosodi-n-Propylamine	No	Y	Y	0.14		N	No detected value of B, Step 7		No
98	N-Nitrosodiphenylamine	No	Y	Y	0.1		N	No detected value of B, Step 7		No
99	Phenanthrene	No Criteria	Y	Y	0.106		N	No Criteria	No Criteria	Uc
100	Pyrene	No	Y	Y	0.082		N	No detected value of B, Step 7		No
101	1,2,4-Trichlorobenzene	No	Y	Y	0.12		N	No detected value of B, Step 7		No
102	Aldrin		Y	Y				No detected value of B, Step 7		No
103	alpha-BHC	No	Y	Y				No detected value of B, Step 7		No
104	beta-BHC	No	Y	Y	0.0039		N	No detected value of B, Step 7		No
105	gamma-BHC	No	Y	Y	0.0066		N	No detected value of B, Step 7		No
106	delta-BHC	No Criteria	Y	Y	0.002		N	No Criteria	No Criteria	Uc
107	Chlordane		Y	Y	0.0065		Y	No detected value of B, Step 7		No
108	4,4'-DDT		Y	Y	0.0016		Y	No detected value of B, Step 7		No
109	4,4'-DDE (linked to DDT)	No	Y	N		0.004		B>C & eff ND, Step 7		No
110	4,4'-DDD	No	Y	Y	0.0008		N	No detected value of B, Step 7		No
111	Dieldrin		Y	N		0.0036		B>C & eff ND, Step 7		no
112	alpha-Endosulfan	No	Y	N		0.042		B<=C, Step 7		No
113	beta-Endosulfan	No	Y	Y	0.0041		N	No detected value of B, Step 7		No
114	Endosulfan Sulfate	No	Y	Y	0.0014		N	No detected value of B, Step 7		No
115	Endrin	No	Y	Y	0.0023		N	No detected value of B, Step 7		No
116	Endrin Aldehyde	No	Y	Y	0.002		N	No detected value of B, Step 7		No
117	Heptachlor		Y	Y	0.0012		Y	No detected value of B, Step 7		No
118	Heptachlor Epoxide		Y	Y	0.0026		Y	No detected value of B, Step 7		No
119-125	PCBs sum (2)		Y	N		0.1	Y	B>C & eff ND, Step 7		no
126	Toxaphene		Y	Y	0.013		Y	No detected value of B, Step 7		No

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
1	Antimony	MEC<C & B<=C	4300	2.01	8626.34093	0.32	1.93	0.53		1.93	1.55
2	Arsenic	MEC<C & B<=C									
3	Beryllium	MEC<C & B is ND									
4	Cadmium	MEC<C & B<=C	Narrative	2.01		0.32	1.45	0.53	1.30	1.30	1.55
5a	Chromium (III)	MEC<C & B is ND									
5b	Chromium (VI)	MEC<C & B<=C									
6	Copper	MEC>=C		1.92		0.35	4.87	0.56	5.19	4.87	1.50
7	Lead	MEC>=C	Narrative	2.68		0.18	14.40	0.33	1.04	1.04	2.12
8	Mercury	MEC>=C	0.051	2.01	0.102						1.55
9	Nickel	MEC>=C	4600	3.37	15481	0.08	38.89	0.12	6.19	6.19	3.58
10	Selenium	MEC<C & B<=C									
11	Silver	MEC<C & B is ND									
12	Thallium	MEC<C & B is ND	6.3	2.01	12.63899	0.32	0.64	0.53		0.64	1.55
13	Zinc	MEC<C & B<=C		2.32		0.24	29.17	0.43	51.69	29.17	1.77
14	Cyanide	MEC<C & B is ND	220000	2.01	441362	0.32	7.06	0.53	2.74	2.74	1.55
15	Asbestos	MEC>=C		3.23		0.10	0.67	0.15		0.67	3.22
16	2,3,7,8 TCDD	MEC>=C	1.40E-08	3.21	4.50E-08	0.10	0.00	0.16		0.00	3.17
17	Acrolein	MEC<C & B is ND									
18	Acrylonitrile	UD, effluent ND, MDL>C, and B is ND									
19	Benzene	MEC<C & B is ND									
20	Bromoform	MEC<C & B is ND									
21	Carbon Tetrachloride	MEC<C & B is ND									
22	Chlorobenzene	MEC<C & B is ND									
23	Chlorodibromomethane	MEC<C & B is ND									
24	Chloroethane	No Criteria									
25	2-Chloroethylvinyl ether	No Criteria									
26	Chloroform	No Criteria									
27	Dichlorobromomethane	MEC<C & B is ND									
28	1,1-Dichloroethane	MEC<C & B is ND									
29	1,2-Dichloroethane	MEC<C & B is ND									
30	1,1-Dichloroethylene	MEC<C & B is ND									
31	1,2-Dichloropropane	MEC<C & B is ND									
32	1,3-Dichloropropylene	MEC<C & B is ND									

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 9 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46.

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
33	Ethylbenzene	MEC<C & B is ND									
34	Methyl Bromide	MEC<C & B is ND									
35	Methyl Chloride	No Criteria									
36	Methylene Chloride	MEC<C & B is ND									
37	1,1,2,2-Tetrachloroethane	MEC<C & B is ND									
38	Tetrachloroethylene	MEC<C & B is ND									
39	Toluene	MEC<C & B is ND									
40	1,2-Trans-Dichloroethylene	MEC<C & B is ND									
41	1,1,1-Trichloroethane	MEC<C & B is ND									
42	1,1,2-Trichloroethane	MEC<C & B is ND									
43	Trichloroethylene	MEC<C & B is ND									
44	Vinyl Chloride	MEC<C & B is ND									
45	2-Chlorophenol	MEC<C & B is ND									
46	2,4-Dichlorophenol	MEC<C & B is ND									
47	2,4-Dimethylphenol	MEC<C & B is ND									
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	MEC<C & B is ND									
49	2,4-Dinitrophenol	MEC<C & B is ND									
50	2-Nitrophenol	No Criteria									
51	4-Nitrophenol	No Criteria									
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria									
53	Pentachlorophenol	MEC>=C	8.2	2.01	16.45075	0.32	0.32	0.53	2.27	0.32	1.55
54	Phenol	MEC<C & B is ND									
55	2,4,6-Trichlorophenol	MEC<C & B is ND									
56	Acenaphthene	MEC<C & B is ND									
57	Acenaphthylene	No Criteria									
58	Anthracene	MEC<C & B is ND									
59	Benzidine	UD; effluent ND, MDL>C, and B is I									
60	Benzo(a)Anthracene	UD; effluent ND, MDL>C, and B is I									
61	Benzo(a)Pyrene	UD; effluent ND, MDL>C, and B is I									
62	Benzo(b)Fluoranthene	MEC>=C									
63	Benzo(ghi)Perylene	No Criteria									

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 10 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
64	Benzo(k)Fluoranthene	UD; effluent ND, MDL>C, and B is I									
65	Bis(2-Chloroethoxy)Methan	No Criteria									
66	Bis(2-Chloroethyl)Ether	MEC<C & B is ND									
67	Bis(2-Chloroisopropyl)Ether	MEC<C & B is ND									
68	Bis(2-Ethylhexyl)Phthalate	MEC>=C	5.9	2.01	11.83652	0.32	1.28	0.53		1.28	1.55
69	4-Bromophenyl Phenyl Ethe	No Criteria									
70	Butylbenzyl Phthalate	MEC<C & B is ND									
71	2-Chloronaphthalene	MEC<C & B is ND									
72	4-Chlorophenyl Phenyl Ethe	No Criteria									
73	Chrysene	UD; effluent ND, MDL>C, and B is I									
74	Dibenzo(a,h)Anthracene	UD; effluent ND, MDL>C, and B is I									
75	1,2-Dichlorobenzene	MEC<C & B is ND									
76	1,3-Dichlorobenzene	MEC<C & B is ND									
77	1,4-Dichlorobenzene	MEC<C & B is ND									
78	3,3-Dichlorobenzidine	UD; effluent ND, MDL>C, and B is I									
79	Diethyl Phthalate	MEC<C & B is ND									
80	Dimethyl Phthalate	MEC<C & B is ND									
81	Di-n-Butyl Phthalate	MEC<C & B is ND									
82	2,4-Dinitrotoluene	MEC<C & B is ND									
83	2,6-Dinitrotoluene	No Criteria									
84	Di-n-Octyl Phthalate	No Criteria									
85	1,2-Diphenylhydrazine	MEC<C & B is ND									
86	Fluoranthene	MEC<C & B is ND									
87	Fluorene	MEC<C & B is ND									
88	Hexachlorobenzene	UD; effluent ND, MDL>C, and B is I									
89	Hexachlorobutadiene	MEC<C & B is ND									
90	Hexachlorocyclopentadiene	MEC<C & B is ND									
91	Hexachloroethane	MEC<C & B is ND									
92	Indeno(1,2,3-cd)Pyrene	UD; effluent ND, MDL>C, and B is I									
93	Isophorone	MEC<C & B is ND									
94	Naphthalene	No Criteria									
95	Nitrobenzene	MEC<C & B is ND									
96	N-Nitrosodimethylamine	MEC<C & B is ND									

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 11 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
97	N-Nitrosodi-n-Propylamine	MEC<C & B is ND									
98	N-Nitrosodiphenylamine	MEC<C & B is ND									
99	Phenanthrene	No Criteria									
100	Pyrene	MEC<C & B is ND									
101	1,2,4-Trichlorobenzene	MEC<C & B is ND									
102	Aldrin	UD; effluent ND, MDL>C, and B is I									
103	alpha-BHC	MEC<C & B is ND									
104	beta-BHC	MEC<C & B is ND									
105	gamma-BHC	MEC<C & B is ND									
106	delta-BHC	No Criteria									
107	Chlordane	UD; effluent ND, MDL>C, and B is I									
108	4,4'-DDT	UD; effluent ND, MDL>C, and B is I									
109	4,4'-DDE (linked to DDT)	ud; B>C & effluent ND									
110	4,4'-DDD	MEC<C & B is ND									
111	Dieldrin	ud; effluent ND, MDL>C & B>C									
112	alpha-Endosulfan	MEC<C & B<=C									
113	beta-Endosulfan	MEC<C & B is ND									
114	Endosulfan Sulfate	MEC<C & B is ND									
115	Endrin	MEC<C & B is ND									
116	Endrin Aldehyde	MEC<C & B is ND									
117	Heptachlor	UD; effluent ND, MDL>C, and B is I									
118	Heptachlor Epoxide	UD; effluent ND, MDL>C, and B is I									
119-125	PCBs sum (2)	ud; effluent ND, MDL>C & B>C									
126	Toxaphene	UD; effluent ND, MDL>C, and B is I									

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	MDEL	
1	Antimony	2.99	3.11	6	6.0	Based on previous permit
2	Arsenic					No reasonable potential
3	Beryllium					No reasonable potential
4	Cadmium	2.02	3.11	4.044274	4.0	Based on previous permit
5a	Chromium (III)					No Limit
5b	Chromium (VI)					No Limit
6	Copper	7.30	2.87	14	31	TMDL
7	Lead	2.19	5.67	5.9	5.2	Reasonable Potential
8	Mercury		3.11		0.024	Mercury Provisions
9	Nickel	22.20	12.06	75	100	MCL to protect GWR
10	Selenium					No reasonable potential
11	Silver					No reasonable potential
12	Thallium	1.00	3.11	2	2	Based on previous permit
13	Zinc	51.67	4.11	120	120	Based on previous permit
14	Cyanide	4.26	3.11	8.5	9.5	Based on previous permit
15	Asbestos	2.17	10.40	7		No reasonable potential
16	2,3,7,8 TCDD	0.00	10.18	0.00003	2.8E-08	Reasonable Potential
17	Acrolein					No reasonable potential
18	Acrylonitrile					No reasonable potential
19	Benzene					No reasonable potential
20	Bromoform					No reasonable potential
21	Carbon Tetrachloride					No reasonable potential
22	Chlorobenzene					No reasonable potential
23	Chlorodibromomethane					No reasonable potential
24	Chloroethane					No reasonable potential
25	2-Chloroethylvinyl ether					No reasonable potential
26	Chloroform					No reasonable potential
27	Dichlorobromomethane					No reasonable potential
28	1,1-Dichloroethane					No reasonable potential
29	1,2-Dichloroethane					No reasonable potential
30	1,1-Dichloroethylene					No reasonable potential
31	1,2-Dichloropropane					No reasonable potential
32	1,3-Dichloropropylene					No reasonable potential

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 13 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	MDEL	
33	Ethylbenzene					No reasonable potential
34	Methyl Bromide					No reasonable potential
35	Methyl Chloride					No reasonable potential
36	Methylene Chloride					No reasonable potential
37	1,1,2,2-Tetrachloroethane					No reasonable potential
38	Tetrachloroethylene					No reasonable potential
39	Toluene					No reasonable potential
40	1,2-Trans-Dichloroethylene					No reasonable potential
41	1,1,1-Trichloroethane					No reasonable potential
42	1,1,2-Trichloroethane					No reasonable potential
43	Trichloroethylene					No reasonable potential
44	Vinyl Chloride					No reasonable potential
45	2-Chlorophenol					No reasonable potential
46	2,4-Dichlorophenol					No reasonable potential
47	2,4-Dimethylphenol					No reasonable potential
48	4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol)					No reasonable potential
49	2,4-Dinitrophenol					No reasonable potential
50	2-Nitrophenol					No reasonable potential
51	4-Nitrophenol					No reasonable potential
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)					No reasonable potential
53	Pentachlorophenol	0.50	3.11	1	1.0	Reasonable Potential
54	Phenol					No reasonable potential
55	2,4,6-Trichlorophenol					No reasonable potential
56	Acenaphthene					No reasonable potential
57	Acenaphthylene					No reasonable potential
58	Anthracene					No reasonable potential
59	Benzidine					No reasonable potential
60	Benzo(a)Anthracene					No reasonable potential
61	Benzo(a)Pyrene					No reasonable potential
62	Benzo(b)Fluoranthene					No reasonable potential
63	Benzo(ghi)Perylene					No reasonable potential

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	MDEL	
64	Benzo(k)Fluoranthene					No reasonable potential
65	Bis(2-Chloroethoxy)Methan					No reasonable potential
66	Bis(2-Chloroethyl)Ether					No reasonable potential
67	Bis(2-Chloroisopropyl)Ether					No reasonable potential
68	Bis(2-Ethylhexyl)Phthalate	1.99	3.11	4	4.0	Reasonable Potential
69	4-Bromophenyl Phenyl Eth					No reasonable potential
70	Butylbenzyl Phthalate					No reasonable potential
71	2-Chloronaphthalene					No reasonable potential
72	4-Chlorophenyl Phenyl Eth					No reasonable potential
73	Chrysene					No reasonable potential
74	Dibenzo(a,h)Anthracene					No reasonable potential
75	1,2-Dichlorobenzene					No reasonable potential
76	1,3-Dichlorobenzene					No reasonable potential
77	1,4-Dichlorobenzene					No reasonable potential
78	3,3-Dichlorobenzidine					No reasonable potential
79	Diethyl Phthalate					No reasonable potential
80	Dimethyl Phthalate					No reasonable potential
81	Di-n-Butyl Phthalate					No reasonable potential
82	2,4-Dinitrotoluene					No reasonable potential
83	2,6-Dinitrotoluene					No reasonable potential
84	Di-n-Octyl Phthalate					No reasonable potential
85	1,2-Diphenylhydrazine					No reasonable potential
86	Fluoranthene					No reasonable potential
87	Fluorene					No reasonable potential
88	Hexachlorobenzene					No reasonable potential
89	Hexachlorobutadiene					No reasonable potential
90	Hexachlorocyclopentadiene					No reasonable potential
91	Hexachloroethane					No reasonable potential
92	Indeno(1,2,3-cd)Pyrene					No reasonable potential
93	Isophorone					No reasonable potential
94	Naphthalene					No reasonable potential
95	Nitrobenzene					No reasonable potential
96	N-Nitrosodimethylamine					No reasonable potential

Filename: SSFL RPA Outfalls 003-004-005-006-007-009-010

Page 15 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	MDEL	
97	N-Nitrosodi-n-Propylamine					No reasonable potential
98	N-Nitrosodiphenylamine					No reasonable potential
99	Phenanthrene					No reasonable potential
100	Pyrene					No reasonable potential
101	1,2,4-Trichlorobenzene					No reasonable potential
102	Aldrin					No reasonable potential
103	alpha-BHC					No reasonable potential
104	beta-BHC					No reasonable potential
105	gamma-BHC					No reasonable potential
106	delta-BHC					No reasonable potential
107	Chlordane					No reasonable potential
108	4,4'-DDT					No reasonable potential
109	4,4'-DDE (linked to DDT)					No reasonable potential
110	4,4'-DDD					No reasonable potential
111	Dieldrin					No reasonable potential
112	alpha-Endosulfan					No reasonable potential
113	beta-Endosulfan					No reasonable potential
114	Endosulfan Sulfate					No reasonable potential
115	Endrin					No reasonable potential
116	Endrin Aldehyde					No reasonable potential
117	Heptachlor					No reasonable potential
118	Heptachlor Epoxide					No reasonable potential
119-125	PCBs sum (2)					No reasonable potential
126	Toxaphene					No reasonable potential

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
1	Antimony	µg/L		2.5	6.00							4300.00	6.00	No
2	Arsenic	µg/L	0.6	15	10.00		340.00	150.00					10.00	Yes
3	Beryllium	µg/L		1.2	4.00							Narrative	4.00	No
4	Cadmium	µg/L	0.6	0.9	5.00		4.52	2.46				Narrative	2.46	No
5a	Chromium (III)	µg/L					1736.51	206.98				Narrative	206.98	
5b	Chromium (VI)	µg/L		0.037	50.00		16.29	11.43				Narrative	11.43	No
6	Copper	µg/L	1.0429	16			14.00	9.33					9.33	Yes
7	Lead	µg/L	2.8322	54			81.65	3.18				Narrative	3.18	Yes
8	Mercury	µg/L	0.6	0.16	2.00		Reserved	Reserved				0.051	0.051	Yes
9	Nickel	µg/L		18	100.00		469.17	52.16				4600.00	52.16	No
10	Selenium	µg/L		2.1	50.00		20.00	5.00				Narrative	5.00	No
11	Silver	µg/L		0.35			4.06						4.06	No
12	Thallium	µg/L		0.14	2.00							6.30	2.00	No
13	Zinc	µg/L	1.6889	120			119.82	119.82					119.82	Yes
14	Cyanide	µg/L	0.6	15	150.00		22.00	5.20				220000.00	5.20	Yes
15	Asbestos	Fibers/L		0.2	7.00								7.00	No
16	2,3,7,8 TCDD	µg/L		2.4E-10	0.00							0.000000014	0.000000014	No
17	Acrolein	µg/L		2.5								780	780	No
18	Acrylonitrile	µg/L										0.66	0.660	
19	Benzene	µg/L		0.25	1.00							71	1.0	No
20	Bromoform	µg/L		0.25								360	360.0	No
21	Carbon Tetrachloride	µg/L		0.25	0.50							4.4	0.50	No
22	Chlorobenzene	µg/L		0.19	70.00							21000	70	No
23	Chlorodibromomethane	µg/L		0.15								34	34.00	No
24	Chloroethane	µg/L		No Criteria									No Criteria	No Criteria
25	2-Chloroethylvinyl ether	µg/L		No Criteria									No Criteria	No Criteria
26	Chloroform	µg/L		No Criteria									No Criteria	No Criteria
27	Dichlorobromomethane	µg/L		0.19								46	46.00	No
28	1,1-Dichloroethane	µg/L		0.25	5.00								5.00	No
29	1,2-Dichloroethane	µg/L		0.15	0.50							99	0.50	No
30	1,1-Dichloroethylene	µg/L		0.25	6.00							3.2	3.200	No
31	1,2-Dichloropropane	µg/L		0.17	5.00							39	5.00	No
32	1,3-Dichloropropylene	µg/L		0.18	0.50							1700	1	No

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
33	Ethylbenzene	µg/L		0.25	300.00							29000	300	No
34	Methyl Bromide	µg/L		0.22								4000	4000	No
35	Methyl Chloride	µg/L		No Criteria								Narrative	No Criteria	No Criteria
36	Methylene Chloride	µg/L		0.57	5.00							1600	5.0	No
37	1,1,2,2-Tetrachloroethane	µg/L		0.2	1.00							11	1.00	No
38	Tetrachloroethylene	µg/L		0.21	5.00							8.85	5.0	No
39	Toluene	µg/L		0.27	150.00							200000	150	No
40	1,2-Trans-Dichloroethylene	µg/L		0.24	10.00							140000	10	No
41	1,1,1-Trichloroethane	µg/L		0.25	200.00							Narrative	200.00	No
42	1,1,2-Trichloroethane	µg/L		0.17	5.00							42	5.0	No
43	Trichloroethylene	µg/L		0.17	5.00							81	5.0	No
44	Vinyl Chloride	µg/L		0.25	0.50							525	1	No
45	2-Chlorophenol	µg/L		0.088								400	400	No
46	2,4-Dichlorophenol	µg/L		0.1								790	790	No
47	2,4-Dimethylphenol	µg/L		0.12								2300	2300	No
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	µg/L		1								765	765.0	No
49	2,4-Dinitrophenol	µg/L		5.42								14000	14000	No
50	2-Nitrophenol	µg/L		No Criteria									No Criteria	No Criteria
51	4-Nitrophenol	µg/L		No Criteria									No Criteria	No Criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	µg/L		No Criteria									No Criteria	No Criteria
53	Pentachlorophenol	µg/L		0.81	1.00		5.44	4.17				8.2	1.00	No
54	Phenol	µg/L		0.081								4600000	4600000	No
55	2,4,6-Trichlorophenol	µg/L		0.072								6.5	6.5	No
56	Acenaphthene	µg/L		0.092								2700	2700	No
57	Acenaphthylene	µg/L		No Criteria									No Criteria	No Criteria
58	Anthracene	µg/L		0.077								110000	110000	No
59	Benzidine	µg/L	0.6	5.46								0.00054	0.00054	Yes
60	Benzo(a)Anthracene	µg/L										0.049	0.0490	
61	Benzo(a)Pyrene	µg/L			0.20							0.049	0.0490	
62	Benzo(b)Fluoranthene	µg/L										0.049	0.0490	
63	Benzo(ghi)Perylene	µg/L		No Criteria									No Criteria	No Criteria

Filename: SSFL RPA Outfall-008

Page 2 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
64	Benzo(k)Fluoranthene	µg/L										0.049	0.0490	
65	Bis(2-Chloroethoxy)Methan	µg/L		No Criteria									No Criteria	No Criteria
66	Bis(2-Chloroethyl)Ether	µg/L		0.05								1.4	1.400	No
67	Bis(2-Chloroisopropyl)Ether	µg/L		0.098								170000	170000	No
68	Bis(2-Ethylhexyl)Phthalate	µg/L		1.9	4.00							5.9	4.0	No
69	4-Bromophenyl Phenyl Ethe	µg/L		No Criteria									No Criteria	No Criteria
70	Butylbenzyl Phthalate	µg/L		0.6								5200	5200	No
71	2-Chloronaphthalene	µg/L		0.1								4300	4300	No
72	4-Chlorophenyl Phenyl Ethe	µg/L		No Criteria									No Criteria	No Criteria
73	Chrysene	µg/L										0.049	0.0490	
74	Dibenzo(a,h)Anthracene	µg/L										0.049	0.0490	
75	1,2-Dichlorobenzene	µg/L		0.11	600.00							17000	600	No
76	1,3-Dichlorobenzene	µg/L		0.11								2600	2600	No
77	1,4-Dichlorobenzene	µg/L		0.11	5.00							2600	5	No
78	3,3-Dichlorobenzidine	µg/L	0.6	1.09								0.077	0.08	Yes
79	Diethyl Phthalate	µg/L		0.394								120000	120000	No
80	Dimethyl Phthalate	µg/L		0.1								2900000	2900000	No
81	Di-n-Butyl Phthalate	µg/L		0.5								12000	12000	No
82	2,4-Dinitrotoluene	µg/L		0.11								9.10	9.10	No
83	2,6-Dinitrotoluene	µg/L		No Criteria									No Criteria	No Criteria
84	Di-n-Octyl Phthalate	µg/L		No Criteria									No Criteria	No Criteria
85	1,2-Diphenylhydrazine	µg/L		0.074								0.54	0.540	No
86	Fluoranthene	µg/L		0.097								370	370	No
87	Fluorene	µg/L		0.086								14000	14000	No
88	Hexachlorobenzene	µg/L			1.00							0.00077	0.00077	
89	Hexachlorobutadiene	µg/L		0.15								50	50.00	No
90	Hexachlorocyclopentadiene	µg/L		0.1	50.00							17000	50	No
91	Hexachloroethane	µg/L		0.12								8.9	8.9	No
92	Indeno(1,2,3-cd)Pyrene	µg/L										0.049	0.0490	
93	Isophorone	µg/L		0.094								600	600.0	No
94	Naphthalene	µg/L		No Criteria									No Criteria	No Criteria
95	Nitrobenzene	µg/L		0.1								1900	1900	No
96	N-Nitrosodimethylamine	µg/L		0.15								8.10	8.10000	No

Filename: SSFL RPA Outfall-008

Page 3 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Units	CV	MEC	Title 22 MCLs	Basin Plan WQOs	CTR Water Quality Criteria (ug/L)						Lowest C	MEC >= Lowest C
							Freshwater		Saltwater		Human Health for consumption of:			
							C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only		
97	N-Nitrosodi-n-Propylamine	µg/L		0.066							1.40	1.400	No	
98	N-Nitrosodiphenylamine	µg/L		0.1							16	16.0	No	
99	Phenanthrene	µg/L		No Criteria								No Criteria	No Criteria	
100	Pyrene	µg/L		0.083							11000	11000	No	
101	1,2,4-Trichlorobenzene	µg/L		0.12	5.00							5.00	No	
102	Aldrin	µg/L					3.00				0.00014	0.00014		
103	alpha-BHC	µg/L		0.0008							0.013	0.0130	No	
104	beta-BHC	µg/L		0.0017							0.046	0.046	No	
105	gamma-BHC	µg/L		0.0046	0.20		0.95				0.063	0.063	No	
106	delta-BHC	µg/L		No Criteria								No Criteria	No Criteria	
107	Chlordane	µg/L			0.10		2.4	0.0043			0.00059	0.00059		
108	4,4'-DDT	µg/L					1.1	0.001			0.00059	0.00059		
109	4,4'-DDE (linked to DDT)	µg/L	0.6	0.0033							0.00059	0.00059	Yes	
110	4,4'-DDD	µg/L		0.0008							0.00084	0.00084	No	
111	Dieldrin	µg/L					0.24	0.056			0.00014	0.00014		
112	alpha-Endosulfan	µg/L		0.0007			0.22	0.056			240	0.0560	No	
113	beta-Endosulfan	µg/L		0.0005			0.22	0.056			240	0.0560	No	
114	Endosulfan Sulfate	µg/L		0.0006							240	240	No	
115	Endrin	µg/L		0.0007	2.00		0.086	0.036			0.81	0.0360	No	
116	Endrin Aldehyde	µg/L		0.0019							0.81	0.81	No	
117	Heptachlor	µg/L			0.01		0.52	0.0038			0.00021	0.00021		
118	Heptachlor Epoxide	µg/L			0.01		0.52	0.0038			0.00011	0.00011		
119-125	PCBs sum (2)	µg/L			0.50			0.014			0.00017	0.00017		
126	Toxaphene	ug/L			3.00		0.73	0.0002			0.00075	0.0002		

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR Water Quality Criteria

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
1	Antimony	No	N					No detected value of B, Step 7		No
2	Arsenic	Yes	N					No detected value of B, Step 7		Yes
3	Beryllium	No	N					No detected value of B, Step 7		No
4	Cadmium	No	N					No detected value of B, Step 7		No
5a	Chromium (III)		N					No detected value of B, Step 7		Ud
5b	Chromium (VI)	No	N					No detected value of B, Step 7		No
6	Copper	Yes	N					No detected value of B, Step 7		Yes
7	Lead	Yes	N					No detected value of B, Step 7		Yes
8	Mercury	Yes	N					No detected value of B, Step 7		Yes
9	Nickel	No	N					No detected value of B, Step 7		No
10	Selenium	No	N					No detected value of B, Step 7		No
11	Silver	No	N					No detected value of B, Step 7		No
12	Thallium	No	N					No detected value of B, Step 7		No
13	Zinc	Yes	N					No detected value of B, Step 7		Yes
14	Cyanide	Yes	N					No detected value of B, Step 7		Yes
15	Asbestos	No	N					No detected value of B, Step 7		No
16	2,3,7,8 TCDD	No	N					No detected value of B, Step 7		No
17	Acrolein	No	N					No detected value of B, Step 7		No
18	Acrylonitrile		N					No detected value of B, Step 7		No
19	Benzene	No	N					No detected value of B, Step 7		No
20	Bromoform	No	N					No detected value of B, Step 7		No
21	Carbon Tetrachloride	No	N					No detected value of B, Step 7		No
22	Chlorobenzene	No	N					No detected value of B, Step 7		No
23	Chlorodibromomethane	No	N					No detected value of B, Step 7		No
24	Chloroethane	No Criteria	N					No Criteria	No Criteria	Uc
25	2-Chloroethylvinyl ether	No Criteria	N					No Criteria	No Criteria	Uc
26	Chloroform	No Criteria	N					No Criteria	No Criteria	Uc
27	Dichlorobromomethane	No	N					No detected value of B, Step 7		No
28	1,1-Dichloroethane	No	N					No detected value of B, Step 7		No
29	1,2-Dichloroethane	No	N					No detected value of B, Step 7		No
30	1,1-Dichloroethylene	No	N					No detected value of B, Step 7		No
31	1,2-Dichloropropane	No	N					No detected value of B, Step 7		No
32	1,3-Dichloropropylene	No	N					No detected value of B, Step 7		No

Filename: SSFL RPA Outfall-008

Page 5 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
33	Ethylbenzene	No	N					No detected value of B, Step 7		No
34	Methyl Bromide	No	N					No detected value of B, Step 7		No
35	Methyl Chloride	No Criteria	N					No Criteria	No Criteria	Uc
36	Methylene Chloride	No	N					No detected value of B, Step 7		No
37	1,1,2,2-Tetrachloroethane	No	N					No detected value of B, Step 7		No
38	Tetrachloroethylene	No	N					No detected value of B, Step 7		No
39	Toluene	No	N					No detected value of B, Step 7		No
40	1,2-Trans-Dichloroethylene	No	N					No detected value of B, Step 7		No
41	1,1,1-Trichloroethane	No	N					No detected value of B, Step 7		No
42	1,1,2-Trichloroethane	No	N					No detected value of B, Step 7		No
43	Trichloroethylene	No	N					No detected value of B, Step 7		No
44	Vinyl Chloride	No	N					No detected value of B, Step 7		No
45	2-Chlorophenol	No	N					No detected value of B, Step 7		No
46	2,4-Dichlorophenol	No	N					No detected value of B, Step 7		No
47	2,4-Dimethylphenol	No	N					No detected value of B, Step 7		No
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	No	N					No detected value of B, Step 7		No
49	2,4-Dinitrophenol	No	N					No detected value of B, Step 7		No
50	2-Nitrophenol	No Criteria	N					No Criteria	No Criteria	Uc
51	4-Nitrophenol	No Criteria	N					No Criteria	No Criteria	Uc
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria	N					No Criteria	No Criteria	Uc
53	Pentachlorophenol	No	N					No detected value of B, Step 7		No
54	Phenol	No	N					No detected value of B, Step 7		No
55	2,4,6-Trichlorophenol	No	N					No detected value of B, Step 7		No
56	Acenaphthene	No	N					No detected value of B, Step 7		No
57	Acenaphthylene	No Criteria	N					No Criteria	No Criteria	Uc
58	Anthracene	No	N					No detected value of B, Step 7		No
59	Benzidine	Yes	N					No detected value of B, Step 7		Yes
60	Benzo(a)Anthracene		N					No detected value of B, Step 7		No
61	Benzo(a)Pyrene		N					No detected value of B, Step 7		No
62	Benzo(b)Fluoranthene		N					No detected value of B, Step 7		No
63	Benzo(ghi)Perylene	No Criteria	N					No Criteria	No Criteria	Uc

Filename: SSFL RPA Outfall-008

Page 6 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
64	Benzo(k)Fluoranthene		N					No detected value of B, Step 7		No
65	Bis(2-Chloroethoxy)Methan	No Criteria	N					No Criteria	No Criteria	Uc
66	Bis(2-Chloroethyl)Ether	No	N					No detected value of B, Step 7		No
67	Bis(2-Chloroisopropyl)Ether	No	N					No detected value of B, Step 7		No
68	Bis(2-Ethylhexyl)Phthalate	No	N					No detected value of B, Step 7		No
69	4-Bromophenyl Phenyl Et	No Criteria	N					No Criteria	No Criteria	Uc
70	Butylbenzyl Phthalate	No	N					No detected value of B, Step 7		No
71	2-Chloronaphthalene	No	N					No detected value of B, Step 7		No
72	4-Chlorophenyl Phenyl Et	No Criteria	N					No Criteria	No Criteria	Uc
73	Chrysene		N					No detected value of B, Step 7		No
74	Dibenzo(a,h)Anthracene		N					No detected value of B, Step 7		No
75	1,2-Dichlorobenzene	No	N					No detected value of B, Step 7		No
76	1,3-Dichlorobenzene	No	N					No detected value of B, Step 7		No
77	1,4-Dichlorobenzene	No	N					No detected value of B, Step 7		No
78	3,3-Dichlorobenzidine	Yes	N					No detected value of B, Step 7		Yes
79	Diethyl Phthalate	No	N					No detected value of B, Step 7		No
80	Dimethyl Phthalate	No	N					No detected value of B, Step 7		No
81	Di-n-Butyl Phthalate	No	N					No detected value of B, Step 7		No
82	2,4-Dinitrotoluene	No	N					No detected value of B, Step 7		No
83	2,6-Dinitrotoluene	No Criteria	N					No Criteria	No Criteria	Uc
84	Di-n-Octyl Phthalate	No Criteria	N					No Criteria	No Criteria	Uc
85	1,2-Diphenylhydrazine	No	N					No detected value of B, Step 7		No
86	Fluoranthene	No	N					No detected value of B, Step 7		No
87	Fluorene	No	N					No detected value of B, Step 7		No
88	Hexachlorobenzene		N					No detected value of B, Step 7		No
89	Hexachlorobutadiene	No	N					No detected value of B, Step 7		No
90	Hexachlorocyclopentadiene	No	N					No detected value of B, Step 7		No
91	Hexachloroethane	No	N					No detected value of B, Step 7		No
92	Indeno(1,2,3-cd)Pyrene		N					No detected value of B, Step 7		No
93	Isophorone	No	N					No detected value of B, Step 7		No
94	Naphthalene	No Criteria	N					No Criteria	No Criteria	Uc
95	Nitrobenzene	No	N					No detected value of B, Step 7		No
96	N-Nitrosodimethylamine	No	N					No detected value of B, Step 7		No

Filename: SSFL RPA Outfall-008

Page 7 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	REASONABLE POTENTIAL ANALYSIS (RPA)								
		Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
97	N-Nitrosodi-n-Propylamine	No	N					No detected value of B, Step 7		No
98	N-Nitrosodiphenylamine	No	N					No detected value of B, Step 7		No
99	Phenanthrene	No Criteria	N					No Criteria	No Criteria	Uc
100	Pyrene	No	N					No detected value of B, Step 7		No
101	1,2,4-Trichlorobenzene	No	N					No detected value of B, Step 7		No
102	Aldrin		N					No detected value of B, Step 7		No
103	alpha-BHC	No	N					No detected value of B, Step 7		No
104	beta-BHC	No	N					No detected value of B, Step 7		No
105	gamma-BHC	No	N					No detected value of B, Step 7		No
106	delta-BHC	No Criteria	N					No Criteria	No Criteria	Uc
107	Chlordane		N					No detected value of B, Step 7		No
108	4,4'-DDT		N					No detected value of B, Step 7		No
109	4,4'-DDE (linked to DDT)	Yes	N					No detected value of B, Step 7		Yes
110	4,4'-DDD	No	N					No detected value of B, Step 7		No
111	Dieldrin		N					No detected value of B, Step 7		No
112	alpha-Endosulfan	No	N					No detected value of B, Step 7		No
113	beta-Endosulfan	No	N					No detected value of B, Step 7		No
114	Endosulfan Sulfate	No	N					No detected value of B, Step 7		No
115	Endrin	No	N					No detected value of B, Step 7		No
116	Endrin Aldehyde	No	N					No detected value of B, Step 7		No
117	Heptachlor		N					No detected value of B, Step 7		No
118	Heptachlor Epoxide		N					No detected value of B, Step 7		No
119-125	PCBs sum (2)		N					No detected value of B, Step 7		No
126	Toxaphene		N					No detected value of B, Step 7		No

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
1	Antimony	Ud; MEC<C & no B									
2	Arsenic	MEC>=C		2.01		0.32	3.21	0.53	79.12	3.21	1.55
3	Beryllium	Ud; MEC<C & no B									
4	Cadmium	Ud; MEC<C & no B	Narrative	2.01		0.32	1.45	0.53	1.30	1.30	1.55
5a	Chromium (III)	No effluent data & no B									
5b	Chromium (VI)	Ud; MEC<C & no B									
6	Copper	MEC>=C		2.56		0.20	2.75	0.36	3.36	2.75	1.99
7	Lead	MEC>=C	Narrative	3.24		0.10	7.79	0.15	0.48	0.48	3.24
8	Mercury	MEC>=C	0.051	2.01	0.102						1.55
9	Nickel	Ud; MEC<C & no B									
10	Selenium	Ud; MEC<C & no B									
11	Silver	Ud; MEC<C & no B									
12	Thallium	Ud; MEC<C & no B									
13	Zinc	MEC>=C		2.97		0.13	15.78	0.24	28.46	15.78	2.55
14	Cyanide	MEC>=C	220000	2.01	441362	0.32	7.06	0.53	2.74	2.74	1.55
15	Asbestos	Ud; MEC<C & no B									
16	2,3,7,8 TCDD	Ud; MEC<C & no B									
17	Acrolein	Ud; MEC<C & no B									
18	Acrylonitrile	Ud; Effluent ND, MDL>C & No B									
19	Benzene	Ud; MEC<C & no B									
20	Bromoform	Ud; MEC<C & no B									
21	Carbon Tetrachloride	Ud; MEC<C & no B									
22	Chlorobenzene	Ud; MEC<C & no B									
23	Chlorodibromomethane	Ud; MEC<C & no B									
24	Chloroethane	No Criteria									
25	2-Chloroethylvinyl ether	No Criteria									
26	Chloroform	No Criteria									
27	Dichlorobromomethane	Ud; MEC<C & no B									
28	1,1-Dichloroethane	Ud; MEC<C & no B									
29	1,2-Dichloroethane	Ud; MEC<C & no B									
30	1,1-Dichloroethylene	Ud; MEC<C & no B									
31	1,2-Dichloropropane	Ud; MEC<C & no B									
32	1,3-Dichloropropylene	Ud; MEC<C & no B									

Filename: SSFL RPA Outfall-008

Page 9 of 16

RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
33	Ethylbenzene	Ud; MEC<C & no B									
34	Methyl Bromide	Ud; MEC<C & no B									
35	Methyl Chloride	No Criteria									
36	Methylene Chloride	Ud; MEC<C & no B									
37	1,1,2,2-Tetrachloroethane	Ud; MEC<C & no B									
38	Tetrachloroethylene	Ud; MEC<C & no B									
39	Toluene	Ud; MEC<C & no B									
40	1,2-Trans-Dichloroethylene	Ud; MEC<C & no B									
41	1,1,1-Trichloroethane	Ud; MEC<C & no B									
42	1,1,2-Trichloroethane	Ud; MEC<C & no B									
43	Trichloroethylene	Ud; MEC<C & no B									
44	Vinyl Chloride	Ud; MEC<C & no B									
45	2-Chlorophenol	Ud; MEC<C & no B									
46	2,4-Dichlorophenol	Ud; MEC<C & no B									
47	2,4-Dimethylphenol	Ud; MEC<C & no B									
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	Ud; MEC<C & no B									
49	2,4-Dinitrophenol	Ud; MEC<C & no B									
50	2-Nitrophenol	No Criteria									
51	4-Nitrophenol	No Criteria									
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria									
53	Pentachlorophenol	Ud; MEC<C & no B									
54	Phenol	Ud; MEC<C & no B									
55	2,4,6-Trichlorophenol	Ud; MEC<C & no B									
56	Acenaphthene	Ud; MEC<C & no B									
57	Acenaphthylene	No Criteria									
58	Anthracene	Ud; MEC<C & no B									
59	Benzidine	MEC>=C	0.00054	2.01	0.00108						1.55
60	Benzo(a)Anthracene	UD; Effluent ND, MDL>C & No B									
61	Benzo(a)Pyrene	UD; Effluent ND, MDL>C & No B									
62	Benzo(b)Fluoranthene	UD; Effluent ND, MDL>C & No B									
63	Benzo(ghi)Perylene	No Criteria									

Filename: SSFL RPA Outfall-008

Page 10 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
64	Benzo(k)Fluoranthene	UD; Effluent ND, MDL>C & No B									
65	Bis(2-Chloroethoxy)Methane	No Criteria									
66	Bis(2-Chloroethyl)Ether	Ud; MEC<C & no B									
67	Bis(2-Chloroisopropyl)Ether	Ud; MEC<C & no B									
68	Bis(2-Ethylhexyl)Phthalate	Ud; MEC<C & no B									
69	4-Bromophenyl Phenyl Ether	No Criteria									
70	Butylbenzyl Phthalate	Ud; MEC<C & no B									
71	2-Chloronaphthalene	Ud; MEC<C & no B									
72	4-Chlorophenyl Phenyl Ether	No Criteria									
73	Chrysene	UD; Effluent ND, MDL>C & No B									
74	Dibenzo(a,h)Anthracene	UD; Effluent ND, MDL>C & No B									
75	1,2-Dichlorobenzene	Ud; MEC<C & no B									
76	1,3-Dichlorobenzene	Ud; MEC<C & no B									
77	1,4-Dichlorobenzene	Ud; MEC<C & no B									
78	3,3-Dichlorobenzidine	MEC>=C	0.077	2.01	0.15448						1.55
79	Diethyl Phthalate	Ud; MEC<C & no B									
80	Dimethyl Phthalate	Ud; MEC<C & no B									
81	Di-n-Butyl Phthalate	Ud; MEC<C & no B									
82	2,4-Dinitrotoluene	Ud; MEC<C & no B									
83	2,6-Dinitrotoluene	No Criteria									
84	Di-n-Octyl Phthalate	No Criteria									
85	1,2-Diphenylhydrazine	Ud; MEC<C & no B									
86	Fluoranthene	Ud; MEC<C & no B									
87	Fluorene	Ud; MEC<C & no B									
88	Hexachlorobenzene	UD; Effluent ND, MDL>C & No B									
89	Hexachlorobutadiene	Ud; MEC<C & no B									
90	Hexachlorocyclopentadiene	Ud; MEC<C & no B									
91	Hexachloroethane	Ud; MEC<C & no B									
92	Indeno(1,2,3-cd)Pyrene	UD; Effluent ND, MDL>C & No B									
93	Isophorone	Ud; MEC<C & no B									
94	Naphthalene	No Criteria									
95	Nitrobenzene	Ud; MEC<C & no B									
96	N-Nitrosodimethylamine	Ud; MEC<C & no B									

Filename: SSFL RPA Outfall-008

Page 11 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
			Organisms only			Saltwater / Freshwater / Basin Plan					
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
97	N-Nitrosodi-n-Propylamine	Ud; MEC<C & no B									
98	N-Nitrosodiphenylamine	Ud; MEC<C & no B									
99	Phenanthrene	No Criteria									
100	Pyrene	Ud; MEC<C & no B									
101	1,2,4-Trichlorobenzene	Ud; MEC<C & no B									
102	Aldrin	UD; Effluent ND, MDL>C & No B									
103	alpha-BHC	Ud; MEC<C & no B									
104	beta-BHC	Ud; MEC<C & no B									
105	gamma-BHC	Ud; MEC<C & no B									
106	delta-BHC	No Criteria									
107	Chlordane	UD; Effluent ND, MDL>C & No B									
108	4,4'-DDT	UD; Effluent ND, MDL>C & No B									
109	4,4'-DDE (linked to DDT)	MEC>=C	0.00059	2.01	0.00118						1.55
110	4,4'-DDD	Ud; MEC<C & no B									
111	Dieldrin	UD; Effluent ND, MDL>C & No B									
112	alpha-Endosulfan	Ud; MEC<C & no B									
113	beta-Endosulfan	Ud; MEC<C & no B									
114	Endosulfan Sulfate	Ud; MEC<C & no B									
115	Endrin	Ud; MEC<C & no B									
116	Endrin Aldehyde	Ud; MEC<C & no B									
117	Heptachlor	UD; Effluent ND, MDL>C & No B									
118	Heptachlor Epoxide	UD; Effluent ND, MDL>C & No B									
119-125	PCBs sum (2)	UD; Effluent ND, MDL>C & No B									
126	Toxaphene	UD; Effluent ND, MDL>C & No B									

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR

C = Water Quality Criteria

B = Background receiving water data

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	MDEL	
1	Antimony					No reasonable potential
2	Arsenic	4.98	3.11	10	10.0	Reasonable Potential
3	Beryllium					No reasonable potential
4	Cadmium	2.02	3.11	4.044274	3.1	TMDL
5a	Chromium (III)					No reasonable potential
5b	Chromium (VI)					No reasonable potential
6	Copper	5.48	5.09	14	67.5	TMDL
7	Lead	1.56	10.48	5.0	5.2	Reasonable Potential
8	Mercury		3.11		0.024	Mercury Provisions
9	Nickel					No reasonable potential
10	Selenium					No reasonable potential
11	Silver					No reasonable potential
12	Thallium					No reasonable potential
13	Zinc	40.32	7.59	120	159	TMDL
14	Cyanide	4.26	3.11	8.5	9.5	Reasonable Potential
15	Asbestos					No reasonable potential
16	2,3,7,8 TCDD					No reasonable potential
17	Acrolein					No reasonable potential
18	Acrylonitrile					No reasonable potential
19	Benzene					No reasonable potential
20	Bromoform					No reasonable potential
21	Carbon Tetrachloride					No reasonable potential
22	Chlorobenzene					No reasonable potential
23	Chlorodibromomethane					No reasonable potential
24	Chloroethane					No reasonable potential
25	2-Chloroethylvinyl ether					No reasonable potential
26	Chloroform					No reasonable potential
27	Dichlorobromomethane					No reasonable potential
28	1,1-Dichloroethane					No reasonable potential
29	1,2-Dichloroethane					No reasonable potential
30	1,1-Dichloroethylene					No reasonable potential
31	1,2-Dichloropropane					No reasonable potential
32	1,3-Dichloropropylene					No reasonable potential

Filename: SSFL RPA Outfall-008

Page 13 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	MDEL	
33	Ethylbenzene					No reasonable potential
34	Methyl Bromide					No reasonable potential
35	Methyl Chloride					No reasonable potential
36	Methylene Chloride					No reasonable potential
37	1,1,2,2-Tetrachloroethane					No reasonable potential
38	Tetrachloroethylene					No reasonable potential
39	Toluene					No reasonable potential
40	1,2-Trans-Dichloroethylene					No reasonable potential
41	1,1,1-Trichloroethane					No reasonable potential
42	1,1,2-Trichloroethane					No reasonable potential
43	Trichloroethylene					No reasonable potential
44	Vinyl Chloride					No reasonable potential
45	2-Chlorophenol					No reasonable potential
46	2,4-Dichlorophenol					No reasonable potential
47	2,4-Dimethylphenol					No reasonable potential
48	4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol)					No reasonable potential
49	2,4-Dinitrophenol					No reasonable potential
50	2-Nitrophenol					No reasonable potential
51	4-Nitrophenol					No reasonable potential
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)					No reasonable potential
53	Pentachlorophenol					No reasonable potential
54	Phenol					No reasonable potential
55	2,4,6-Trichlorophenol					No reasonable potential
56	Acenaphthene					No reasonable potential
57	Acenaphthylene					No reasonable potential
58	Anthracene					No reasonable potential
59	Benzidine		3.11		0.00054	Reasonable Potential
60	Benzo(a)Anthracene					No reasonable potential
61	Benzo(a)Pyrene					No reasonable potential
62	Benzo(b)Fluoranthene					No reasonable potential
63	Benzo(ghi)Perylene					No reasonable potential

Filename: SSFL RPA Outfall-008

Page 14 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	MDEL	
64	Benzo(k)Fluoranthene					No reasonable potential
65	Bis(2-Chloroethoxy)Methan					No reasonable potential
66	Bis(2-Chloroethyl)Ether					No reasonable potential
67	Bis(2-Chloroisopropyl)Ether					No reasonable potential
68	Bis(2-Ethylhexyl)Phthalate					No reasonable potential
69	4-Bromophenyl Phenyl Etha					No reasonable potential
70	Butylbenzyl Phthalate					No reasonable potential
71	2-Chloronaphthalene					No reasonable potential
72	4-Chlorophenyl Phenyl Etha					No reasonable potential
73	Chrysene					No reasonable potential
74	Dibenzo(a,h)Anthracene					No reasonable potential
75	1,2-Dichlorobenzene					No reasonable potential
76	1,3-Dichlorobenzene					No reasonable potential
77	1,4-Dichlorobenzene					No reasonable potential
78	3,3-Dichlorobenzidine		3.11		0.077	Reasonable Potential
79	Diethyl Phthalate					No reasonable potential
80	Dimethyl Phthalate					No reasonable potential
81	Di-n-Butyl Phthalate					No reasonable potential
82	2,4-Dinitrotoluene					No reasonable potential
83	2,6-Dinitrotoluene					No reasonable potential
84	Di-n-Octyl Phthalate					No reasonable potential
85	1,2-Diphenylhydrazine					No reasonable potential
86	Fluoranthene					No reasonable potential
87	Fluorene					No reasonable potential
88	Hexachlorobenzene					No reasonable potential
89	Hexachlorobutadiene					No reasonable potential
90	Hexachlorocyclopentadiene					No reasonable potential
91	Hexachloroethane					No reasonable potential
92	Indeno(1,2,3-cd)Pyrene					No reasonable potential
93	Isophorone					No reasonable potential
94	Naphthalene					No reasonable potential
95	Nitrobenzene					No reasonable potential
96	N-Nitrosodimethylamine					No reasonable potential

Filename: SSFL RPA Outfall-008

Page 15 of 16 RPA requirements and methodology are detailed in the Fact Sheet on pages F-31 to F-46

Revised Tentative Reasonable Potential Analysis (Per Sections 1.3 and 1.4 of SIP)

CTR#	Parameters				LIMITS (µg/L)	Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	MDEL	
97	N-Nitrosodi-n-Propylamine					No reasonable potential
98	N-Nitrosodiphenylamine					No reasonable potential
99	Phenanthrene					No reasonable potential
100	Pyrene					No reasonable potential
101	1,2,4-Trichlorobenzene					No reasonable potential
102	Aldrin					No reasonable potential
103	alpha-BHC					No reasonable potential
104	beta-BHC					No reasonable potential
105	gamma-BHC					No reasonable potential
106	delta-BHC					No reasonable potential
107	Chlordane					No reasonable potential
108	4,4'-DDT					No reasonable potential
109	4,4'-DDE (linked to DDT)		3.11		0.00059	Reasonable Potential
110	4,4'-DDD					No reasonable potential
111	Dieldrin					No reasonable potential
112	alpha-Endosulfan					No reasonable potential
113	beta-Endosulfan					No reasonable potential
114	Endosulfan Sulfate					No reasonable potential
115	Endrin					No reasonable potential
116	Endrin Aldehyde					No reasonable potential
117	Heptachlor					No reasonable potential
118	Heptachlor Epoxide					No reasonable potential
119-125	PCBs sum (2)					No reasonable potential
126	Toxaphene					No reasonable potential

Notes

Ud = Undetermined due to lack of data

Uc = Undetermined due to lack of CTR

C = Water Quality Criteria

B = Background receiving water data