

**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>)

**WATER QUALITY ORDER R4-2022-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:	February 10, 2022
This Order shall become effective on:	April 1, 2022
This Order shall expire on:	March 31, 2027
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, Renee Purdy, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on February 10, 2022.

Renee Purdy, Executive Officer

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1. FACILITY INFORMATION

Information describing the Santa Susana Field Laboratory (Facility) is summarized on the cover page 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 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 this Order supersedes Order Number R4-2015-0033 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. Wastes discharged shall be limited to a maximum of 187 million gallons per day (MGD) of stormwater runoff, as described in the Fact Sheet (Attachment F).

- 3.2. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited and constitutes a violation of the Order. The discharge of wastes from accidental spills or other sources is prohibited.
- 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, Bell Creek, Dayton Canyon Creek, Arroyo Simi or other waters of the United States, are prohibited.
- 3.4. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or a nuisance as defined by section 13050 of the Water Code.
- 3.5. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
- 3.6. The discharge shall not cause or contribute to a violation of any applicable water quality standards for receiving waters adopted by the Los Angeles Water Board or the State Water Resources Control Board (State Water Board) as required by the federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the federal CWA, and amendments thereto, the Los Angeles Water Board will revise and modify this Order in accordance with such more stringent standards.
- 3.7. Discharge of oil or any residuary product of petroleum to waters of the State, except in accordance with this Order or other provisions of division 7 of the Water Code, is prohibited.
- 3.8. The discharge of any radiological, chemical, or biological warfare agent into the waters of the state is prohibited under Water Code section 13375.
- 3.9. 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.
- 3.10. The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited.
- 3.11. There shall be no discharge of polychlorinated biphenyl (PCB) compounds, such as those once commonly used for transformer fluid, unless specifically authorized elsewhere in this Order.

4. EFFLUENT LIMITATIONS

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

The Discharger shall maintain compliance with the following effluent limitations at Discharge Points 011 and 018, with compliance measured at Discharge Points 011 and 018. Benchmarks (Note a) are provided for Discharge Points 001 and 002 as described in the Monitoring and Reporting Program (MRP), Attachment E.

Table 4. Effluent Limitations for Discharge Points 011 and 018, Benchmarks (Note a) - Discharge Points 001 and 002

Conventional Pollutants	Units (Note b)	Maximum Daily Effluent Limitations
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
Oil and Grease	mg/L	15
Oil and Grease	lbs/day	14,741
pH	standard units	6.5 to 8.5 (Note c)

Non-Conventional Pollutants	Units (Note b)	Maximum Daily Effluent Limitations
Barium, Total Recoverable (TR)	mg/L	1.0
Barium, TR	lbs/day	983
Chloride	mg/L	150
Chloride	lbs/day	147,405
Chlorine, TR	mg/L	0.1
Chlorine, TR	lbs/day	98.3
Chronic Toxicity (Note d)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50
Fluoride	mg/L	1.6
Fluoride	lbs/day	1,572
Detergents (as MBAS)	mg/L	0.5
Detergents (as MBAS)	lbs/day	491.4
Ammonia – N	mg/L	10.1
Ammonia – N	lbs/day	9,925
Nitrate – N	mg/L	8
Nitrate – N	lbs/day	7,862
Nitrite – N	mg/L	1
Nitrite – N	lbs/day	983
Nitrate + Nitrite – N	mg/L	8
Nitrate + Nitrite – N	lbs/day	7,862
Perchlorate	µg/L	6.0
Perchlorate	lbs/day	5.9
Sulfate	mg/L	300
Sulfate	lbs/day	294,810
Temperature	degrees Fahrenheit (°F)	80 (Note e)

Non-Conventional Pollutants	Units (Note b)	Maximum Daily Effluent Limitations
Total Dissolved Solids	mg/L	950
Total Dissolved Solids	lbs/day	933,565
Radioactivity – Gross Alpha (Note f)	Picocuries per liter (pCi/L)	15
Radioactivity – Gross Beta (Note f)	pCi/L	50
Combined Radium-226 & Radium-228 (Note f)	pCi/L	5.0
Tritium (Note f)	pCi/L	20,000
Strontium-90 (Note f)	pCi/L	8.0

Priority Pollutants	Units (Note b)	Maximum Daily Effluent Limitations
Antimony, Total Recoverable (TR) (Notes g and h)	micrograms per liter (µg/L)	6.0
Antimony, TR (Notes g and h)	lbs/day	5.9
Arsenic, TR (Notes g and h)	µg/L	10.0
Arsenic, TR (Notes g and h)	lbs/day	9.83
Beryllium, TR (Notes g and h)	µg/L	4.0
Beryllium, TR (Notes g and h)	lbs/day	3.93
Cadmium, TR (Note h)	µg/L	3.1 (Note i)
Cadmium, TR (Note h)	lbs/day	3.05
Chromium (VI), (Notes g, h, and j)	µg/L	16
Chromium (VI), (Notes g, h, and j)	lbs/day	15.7
Copper, TR (Note h)	µg/L	67.5
Copper, TR (Note h)	lbs/day	66.3
Lead, TR (Note h)	µg/L	94
Lead, TR (Note h)	lbs/day	92.4
Mercury, TR (Notes g and h)	µg/L	0.1
Mercury, TR (Notes g and h)	lbs/day	0.1
Silver, TR (Notes g and h)	µg/L	4.1
Silver, TR (Notes g and h)	lbs/day	4.03
Thallium, TR (Notes g and h)	µg/L	2.0
Thallium, TR (Notes g and h)	lbs/day	1.97
Zinc, TR (Note h)	µg/L	159
Zinc, TR (Note h)	lbs/day	156.25
Cyanide	µg/L	8.5
Cyanide	lbs/day	8.4

Priority Pollutants	Units (Note b)	Maximum Daily Effluent Limitations
TCDD Equivalents (Note k)	µg/L	2.8E-08
TCDD Equivalents (Note k)	lbs/day	2.75E-08
1,2-Dichloroethane	µg/L	0.5
1,2-Dichloroethane	lbs/day	0.49
1,1-Dichlorethylene	µg/L	6.0
1,1-Dichlorethylene	lbs/day	5.9
Trichloroethylene	µg/L	5
Trichloroethylene	lbs/day	4.9
Pentachlorophenol	µg/L	16.5
Pentachlorophenol	lbs/day	16.22
2,4,6-Trichlorophenol	µg/L	13
2,4,6-Trichlorophenol	lbs/day	12.8
Bis(2-ethylhexyl)Phthalate	µg/L	4
Bis(2-ethylhexyl)Phthalate	lbs/day	3.93
2,4-Dinitrotoluene	µg/L	18
2,4-Dinitrotoluene	lbs/day	17.7
N-Nitrosodimethylamine	µg/L	16
N-Nitrosodimethylamine	lbs/day	15.72
alpha-BHC	µg/L	0.03
alpha-BHC	lbs/day	0.03

Footnotes for Table 4

- a. A “benchmark” is a performance-based limit that is used to evaluate the performance of best management practices (BMPs) with regard to the removal of pollutants present in the discharge. In this Order, the benchmarks are established for Discharge Points 001 and 002 based on water quality-based effluent limitations for Outfalls 011 and 018. Exceedance of a benchmark triggers an evaluation of the BMPs implemented at the site. The evaluation may determine that the BMPs require augmentation, upgrading, or replacement. If so, the Discharger must develop a plan to implement the required upgrades and report to the Los Angeles Water Board within 60 days of the reported exceedance. The Discharger shall continue monitoring as directed in the Monitoring and Reporting Program during plan development and implementation.
- b. The mass-based effluent limitations/benchmarks are calculated using the maximum flow of 117.83 million gallons per day (MGD) for Outfalls 001, 002, 011, and 018 combined as follows:

$$\text{Mass (lbs/day)} = \text{Flow (mgd)} * 8.34 * \text{concentration (mg/L)}.$$
- c. The effluent limitations/benchmarks for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.
- d. The Maximum Daily Effluent Limitation (MDEL)/benchmark shall be reported “Pass” or “Fail” and “% Effect”. The Discharger shall conduct chronic toxicity monitoring as specified in the MRP. The Discharger demonstrates compliance with the chronic toxicity MDELs if the chronic toxicity testing result meets one of the following:

- 1) The chronic toxicity testing result is "Pass"; or
 - 2) The percent effect is less than 50 if the chronic toxicity result is "Fail".
- e. The effluent limitation/benchmark for temperature is 80°F based on the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation. The applicable water quality objective (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."
- f. Gross alpha and gross beta analysis must be performed. If gross alpha is greater than 15 pCi/L, uranium analysis must be performed. Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be less than or equal to 5pCi/L. If gross alpha is less than 5 pCi/L, one can assume Ra-226 activity is equal to gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross Beta, Tritium, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be less than or equal to 50 pCi/L. However, if gross beta is greater than 50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the 50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta is greater than 50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters do not exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include Tritium and Sr-90. If during the preceding 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.
- g. Concentrations correspond to a total hardness of 100 mg/L.
- h. Samples analyzed must be unfiltered samples.
- i. The wet-weather targets apply to days when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cubic feet per second (cfs).
- j. 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.
- k. 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 Discharger shall maintain compliance with the following effluent limitations at Discharge Points 003, 004, 005, 006, 007, 009, and 010.

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

Conventional Pollutants	Units (Note a)	Maximum Daily Effluent Limitations
Oil and grease	mg/L	15
Oil and grease	lbs/day	8,048
pH	standard units	6.5 to 8.5 (Note b)

Non-Conventional Pollutants	Units (Note a)	Maximum Daily Effluent Limitations
Boron	mg/L	1.0
Boron	lbs/day	537
Chloride	mg/L	150

Non-Conventional Pollutants	Units (Note a)	Maximum Daily Effluent Limitations
Chloride	lbs/day	80,477
Chronic Toxicity (Note c)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50
Fluoride	mg/L	1.6
Fluoride	lbs/day	858
Nitrate + Nitrite – N	mg/L	10
Nitrate + Nitrite – N	lbs/day	5,365
Perchlorate	µg/L	6.0
Perchlorate	lbs/day	3.22
Sulfate	mg/L	250
Sulfate	lbs/day	134,128
Temperature	°F	80 (Note d)
Total Dissolved Solids	mg/L	850
Total Dissolved Solids	lbs/day	456,034
Radioactivity – Gross Alpha (Note e)	pCi/L	15
Radioactivity – Gross Beta (Note e)	pCi/L	50
Combined Radium-226 & Radium-228 (Note e)	pCi/L	5.0
Tritium (Note e)	pCi/L	20,000
Strontium-90 (Note e)	pCi/L	8.0

Priority Pollutants	Units (Note a)	Maximum Daily Effluent Limitations
Antimony, TR (Notes f and g)	µg/L	6.0
Antimony, TR (Notes f and g)	lbs/day	3.2
Cadmium, TR (Note g)	µg/L	4.0
Cadmium, TR (Note g)	lbs/day	2.1
Copper, TR (Note g)	µg/L	31
Copper, TR (Note g)	lbs/day	16.6
Lead, TR (Note g)	µg/L	5.2
Lead, TR (Note g)	lbs/day	2.8
Mercury, TR (Notes f and g)	µg/L	0.051
Mercury, TR (Notes f and g)	lbs/day	0.027
Nickel, TR (Notes f and g)	µg/L	958
Nickel, TR (Notes f and g)	lbs/day	514.0
Thallium, TR (Notes f and g)	µg/L	2
Thallium, TR (Notes f and g)	lbs/day	1.1
Zinc, TR (Note g)	µg/L	120

Priority Pollutants	Units (Note a)	Maximum Daily Effluent Limitations
Zinc, TR (Note g)	lbs/day	64.4
Cyanide	µg/L	9.5
Cyanide	lbs/day	5.1
TCDD Equivalents (Note h)	µg/L	2.8E-08
TCDD Equivalents (Note h)	lbs/day	1.5E-08

Footnotes for Table 5

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

$$\text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)} = \text{lbs/day.}$$
- b. The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.
- c. The MDEL shall be reported “Pass” or “Fail” and “% Effect”. The Discharger shall conduct chronic toxicity monitoring as specified in the MRP. The Discharger demonstrates compliance with the chronic toxicity MDELs if the chronic toxicity testing result meets one of the following:
 - 1) The chronic toxicity testing result is “Pass”; or
 - 2) The percent effect is less than 50 if the chronic toxicity result is “Fail”.
- d. The effluent limitation for temperature is 80°F based on the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation. 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.”
- e. Gross alpha and gross beta analysis must be performed. If gross alpha is >15 pCi/L, uranium analysis must be performed. Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be ≤ 5pCi/L. If gross alpha is <5 pCi/L, one can assume Ra-226 activity = gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross Beta, Tritium, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be ≤50 pCi/L. However, if gross beta is >50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the ≤50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta >50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters don’t exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include Tritium and Sr-90. If during the preceding 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.
- f. Concentrations correspond to a total hardness of 100 mg/L.
- g. Samples analyzed must be unfiltered samples.
- h. 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
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 Discharger shall maintain compliance with the following effluent limitations at Discharge Point 008.

Table 6. Effluent Limitations for Discharge Point 008

Conventional Pollutants	Units. (Note a)	Maximum Daily Effluent Limitations
Oil and Grease	mg/L	15
Oil and Grease	lbs/day	902
pH	standard units	6.5 to 8.5 (Note b)

Non-Conventional Pollutants	Units (Note a)	Maximum Daily Effluent Limitations
Boron	mg/L	1.0
Boron	lbs/day	60
Chloride	mg/L	150
Chloride	lbs/day	9,020
Chronic Toxicity (Note c)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50
Fluoride	mg/L	1.6
Fluoride	lbs/day	96.2
Ammonia – N	mg/L	10.1
Ammonia – N	lbs/day	607.3
Nitrate – N	mg/L	8
Nitrate – N	lbs/day	481
Nitrite – N	mg/L	1
Nitrite – N	lbs/day	60
Nitrate + Nitrite – N	mg/L	8
Nitrate + Nitrite – N	lbs/day	481
Perchlorate	µg/L	6.0
Perchlorate	lbs/day	0.36
Sulfate	mg/L	300
Sulfate	lbs/day	18,039
Temperature	°F	80 (Note d)
Total Dissolved Solids	mg/L	950
Total Dissolved Solids	lbs/day	57,124
Radioactivity – Gross Alpha (Note e)	pCi/L	15
Radioactivity – Gross Beta (Note e)	pCi/L	50
Combined Radium-226 & Radium-228 (Note e)	pCi/L	5.0
Tritium (Note e)	pCi/L	20,000
Strontium-90 (Note e)	pCi/L	8.0

Priority Pollutants	Units (Note a)	Maximum Daily Effluent Limitations
Cadmium, TR (Note f)	µg/L	3.1 (Note g)
Cadmium, TR (Note f)	lbs/day	0.19
Copper, TR (Note f)	µg/L	67.5

Priority Pollutants	Units (Note a)	Maximum Daily Effluent Limitations
Copper, TR (Note f)	lbs/day	4.1
Lead, TR (Note f)	µg/L	94
Lead, TR (Note f)	lbs/day	5.7
Zinc, TR (Note f)	µg/L	159
Zinc, TR (Note f)	lbs/day	9.6
Cyanide	µg/L	9.5
Cyanide	lbs/day	0.57
TCDD Equivalent (Note h)	µg/L	2.8E-08
TCDD Equivalent (Note h)	lbs/day	1.69E-09

Footnotes for Table 6

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

$\text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)} = \text{lbs/day.}$
- b. The effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.
- c. The MDEL shall be reported “Pass” or “Fail” and “% Effect”. The Discharger shall conduct chronic toxicity monitoring as specified in the MRP. The Discharger demonstrates compliance with the chronic toxicity MDELs if the chronic toxicity testing result meets one of the following:
 - 1) The chronic toxicity testing result is “Pass”; or
 - 2) The percent effect is less than 50 if the chronic toxicity result is “Fail”.
- d. The effluent limitation for temperature is 80°F based on the water quality objective in the Basin Plan for temperature that is applicable to inland surface waters with a WARM beneficial use designation. 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.”
- e. Gross alpha and gross beta analysis must be performed. If gross alpha is >15 pCi/L, uranium analysis must be performed. Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be ≤ 5pCi/L. If gross alpha is <5 pCi/L, one can assume Ra-226 activity = gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross Beta, Tritium, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be ≤50 pCi/L. However, if gross beta is >50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the ≤50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta >50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters don’t exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include Tritium and Sr-90. If during the preceding 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.

- f. Samples analyzed must be unfiltered samples.
- g. The wet-weather targets apply to days when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cubic feet per second (cfs).
- h. TCDD equivalents shall be calculated using the following formula, where the minimum levels, 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 level to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

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

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 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 the following in the Arroyo Simi or in Bell Creek.

- 5.1.1. The pH of the Arroyo Simi and Bell Creek shall not be depressed below 6.5 or raised above 8.5 as a result of the discharge. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge. Natural conditions shall be determined on a case-by-case basis.
- 5.1.2. Water temperature to be altered by more than 5 °F above the natural temperature. At no time shall the temperature be raised above 80 °F as a result of waste discharges.
- 5.1.3. Water Contact Recreation Limitations
In fresh water designated for water contact recreation (REC-1), the waste discharged shall not cause the following bacteria limitations to be exceeded in the receiving water.
 - 5.1.3.1 Limitations for Bell Creek:
Geometric Mean Limit
 - a. *E. coli* density shall not exceed 126/100 mL
Single Sample Maximum
 - b. *E. coli* density shall not exceed 235/100 mL
 - 5.1.3.2 Limitations for Arroyo Simi:
Geometric Mean Limit
 - a. *E. coli* density shall not exceed 100/100mL
Statistical Threshold Value:
 - b. *E. coli* density shall not exceed 320/100mL
- 5.1.4. The mean annual dissolved oxygen concentration to be less than 7.0 mg/L. No single determination of dissolved oxygen shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.
- 5.1.5. Exceedance of the total ammonia (as N) concentrations specified in Chapter 3 of the Basin Plan.
- 5.1.6. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.
- 5.1.7. Increases in turbidity greater than 20%, where natural turbidity is between 0 to 50 NTU. Where natural turbidity is greater than 50 NTU, increases in turbidity shall not exceed 10%.
- 5.1.8. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water.

- 5.1.9. Suspended or settleable materials, chemical substances, or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.
- 5.1.10. Toxic or other deleterious substances in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
- 5.1.11. Accumulation of bottom deposits or aquatic growths.
- 5.1.12. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
- 5.1.13. The presence of substances that result in increases of BOD that adversely affect beneficial uses.
- 5.1.14. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses.
- 5.1.15. Alteration of turbidity, or apparent color beyond present natural background levels.
- 5.1.16. Damage, discoloration, or the formation of sludge deposits on flood control structures or facilities, or overloading of the design capacity.
- 5.1.17. Degradation of surface water communities and populations including vertebrate, invertebrate, and plant species.
- 5.1.18. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.
- 5.1.19. The creation of nuisance, or adverse effects on beneficial uses of the receiving water.
- 5.1.20. Chlorine residual to be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses.
- 5.1.21. Violation of any applicable water quality standard for receiving waters adopted by the Los Angeles Water Board or State Water Board.

5.2. Receiving Water Limitations for Pesticides and PCBs for Arroyo Simi

Per the Calleguas Creek Toxicity TMDL (Basin Plan Chapter 7, Section 7-16), the discharge shall not cause the concentration of constituents in Arroyo Simi in the vicinity of the discharges from Outfall 003 through 007, 009, and 010, to exceed the following limits:

Table 7. Daily Maximum Limits for Chlorpyrifos and Diazinon in Arroyo Simi

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

5.3. Receiving Water Sediment Limitations for Organochlorine (OC) Pesticides and PCBs in Arroyo Simi

Per the TMDL for OC Pesticides, PCBs, and Siltation in the Calleguas Creek Watershed (Basin Plan Chapter 7, Section 7-17), the Discharge shall comply with the final receiving water sediment limitations below on the effective date of this Order. Attainment of the final limitations is determined by evaluating the in-stream annual averages of the constituents below Frontier Park, an unnamed tributary to Arroyo Simi. The Discharger is required to use analytical methods with detection values below the specified limits, if possible, to demonstrate compliance.

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

Constituents	Units	Daily Maximum
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

5.4. 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:

- a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 C.F.R., sections 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- b. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of wastewater and 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.

- c. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 318, 405, and 423 of the federal CWA and amendments thereto.
- d. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
- e. Oil or oily material, chemicals, refuse, or other wastes that constitute a condition of pollution or nuisance shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.
- f. A copy of these waste discharge requirements shall be maintained at the discharge facility so as to be available at all times to operating personnel.
- g. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - i. Violation of any term or condition contained in this Order;
 - ii. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- h. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not staffed at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
- i. The Discharger shall file with the Los Angeles Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.
- j. 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 30 days prior to taking effect and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Los Angeles Water Board.
- k. 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.

- I. 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.
- m. 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.
- n. 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.
- o. 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 Los Angeles Water Board by telephone (213) 620-2083 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.
- p. 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 above for a pollutant is exceeded from Outfalls 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 Los Angeles Water Board will work cooperatively to develop a schedule that is as short as possible to take appropriate actions under the 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) discharges from a solid waste management unit regulated by DTSC are causing or contributing to the violation, (ii) the Discharger was in compliance with all applicable requirements of DTSC permits and corrective action requirements for the unit, and (iii) modifications to DTSC's permit or corrective action requirements are necessary to consistently comply with this Order. This Order may be reopened and modified, in accordance with applicable laws and regulations, or a Time Schedule Order issued to incorporate appropriate interim limits while the appropriate actions are being taken under the RCRA corrective action requirements or permits.

6.3.1. Reopener Provisions

- a. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the federal CWA, and amendments thereto, the Los Angeles Water Board may revise and modify this Order in accordance with such more stringent standards.
- b. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the reasonable potential analysis (RPA).
- c. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new MLs.
- d. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan amendments, such as an update of a water quality objective or the adoption or revision of a TMDL for the Los Angeles River and tributaries thereto or for Arroyo Simi, a tributary to Calleguas Creek.
- e. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.
- f. This Order may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Water Board, to provide for dilution credits or a mixing zone, as may be appropriate.
- g. In accordance with Section 6.1.2.a., 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 also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.26, 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, and 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.
- i. 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. Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.

The Discharger shall submit to the Los Angeles Water Board an updated Initial Investigation TRE workplan (1-2 pages) within **90 days** of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity is detected. 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 for 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 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 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 a condition 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 BMPP can be included and submitted with the SWPPP.

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, including benchmarks where applicable, at any outfall 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 at the site. The SCP may be substituted with 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 implement the SWPPP, BMPP, and SCP (or SPCC) 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.

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 consider the impacts of climate change as it affects the operation of the stormwater BMPs due to flooding, wildfire, sea level rise, or other climate-related changes. The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change related effects associated with facility operation, water quality and beneficial uses. 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 contained in section 4 of this Order shall 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 (RL), 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

Discharges from Groundwater Extraction and Treatment System (GETS) is not permitted. Due to practice of groundwater injection, Outfalls 019 and 020 have been removed from the permit and no additional monitoring is required at these locations.

7.6. Maximum Daily Effluent Limitations (MDEL)

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that parameter for that one day only within the reporting period. For any one day during which no sample is taken, no compliance determination will 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 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 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. The null hypothesis (Ho) 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 Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST approach, results in “Fail” and the “Percent Effect” is ≥ 50 .

7.11. Mass and Concentration Limitations

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

7.12. Bacterial Standards and Analyses

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

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

Where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal

coliform, at a minimum, and 1 to 1000 per 100 ml for *Enterococcus*). The detection method used for each analysis shall be reported with the results of the analysis.

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

7.13. Benchmarks and Receiving Water Limitations

A “benchmark” is a water quality based effluent limit or a performance-based limit that is used to evaluate the performance of best management practices (BMPs) with regard to the removal of pollutants present in the discharge. In this Order, the benchmarks are established based on water quality based effluent limitations. Exceedance of a benchmark triggers an evaluation of the BMPs implemented at the site. The evaluation may determine that the BMPs require augmentation, upgrading, or replacement. If so, the Discharger shall develop a plan to implement the required upgrades and report to the Los Angeles Water Board within 60 days of the reported exceedance. The Discharger shall continue monitoring as directed in the Monitoring and Reporting Program and the Best Management Practices Plan during the evaluation and implementation of BMPs.

The Discharger shall comply with benchmarks and receiving water limitations through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the BMP plan and its components and other requirements of this Order including any modifications. The BMP plan and its components shall be designed to achieve compliance with receiving water limitations. If exceedances of Water Quality Objectives or Water Quality Standards (collectively, Water Quality Standards) persist, notwithstanding implementation of the BMP and its components and other requirements of this Order, the Discharger shall assure compliance with benchmarks and receiving water limitations by complying with the following procedure:

1. Upon a determination by either the Discharger or the Los Angeles Water Board that discharges are causing or contributing to an exceedance of an applicable Water Quality Standard, the Discharger shall within 24 hours notify and thereafter submit a revised BMP Compliance Report (as described in the Monitoring and Reporting Program) to the Los Angeles Water Board that describes the BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of Water Quality Standards. This BMP Compliance Report shall be included in the corresponding quarterly report to address the reported exceedance of a benchmark. The BMP Compliance Report shall include an implementation schedule along with descriptions and proposed installation locations of the upgrades or new BMPs. The Executive Officer at the Los Angeles Water Board may require modifications to the BMP Report.
2. Submit any modifications to the BMP Report required by the Los Angeles Water Board within 30 days of notification.

3. Within 30 days following the approval of the BMP Report, the Discharger shall revise the BMP Compliance Plan and its component and monitoring program to incorporate the approved modifications that have been and will be implemented; and implementation schedule, and any additional monitoring required.
4. Implement the revised BMP Plan and its components and monitoring program according to the approved schedule.
5. So long as the Discharger has complied with the procedures set forth above and is implementing the revised BMP Plan and its component, the Discharger does not have to repeat the same procedure for continuing or recurring exceedances of the same effluent limitations or receiving water limitations unless directed by the Los Angeles Water Board to develop additional BMPs.

7.14. 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.

7.15. 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 5.3 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 Outfalls 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.

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.

Benchmark

A “benchmark” is a water quality based effluent limit or a performance-based limit that is used to evaluate the performance of best management practices (BMPs) with regard to the removal of pollutants present in the discharge. In this Order, the benchmarks are established based on water quality based effluent limitations.

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.

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 colometric 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.

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.

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

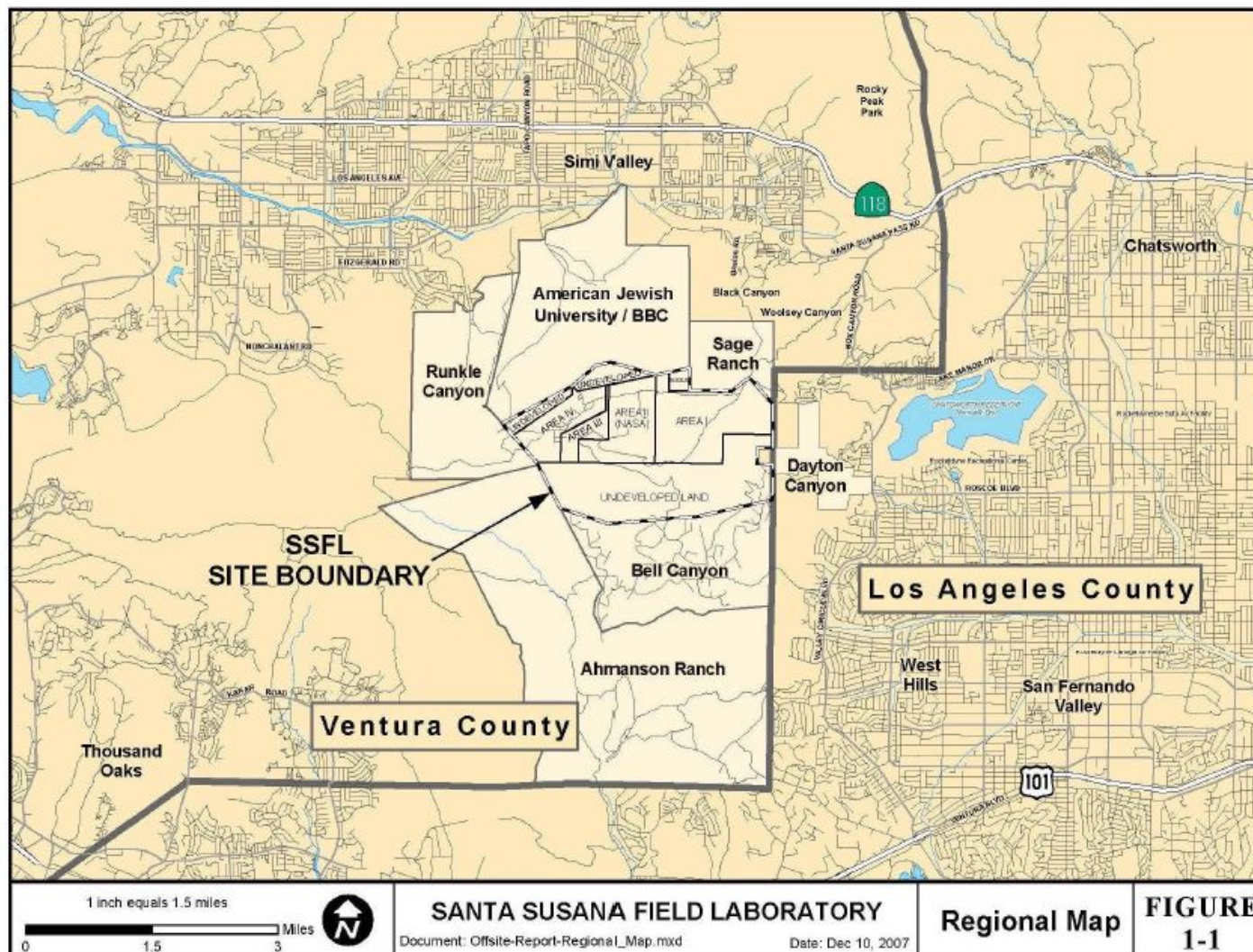
All improperly discarded solid material from any production, manufacturing, or processing operation including, but not limited to, products, product packaging, or containers constructed of plastic, steel, aluminum, glass, paper, or other synthetic or natural materials.

ACRONYMS AND ABBREVIATIONS

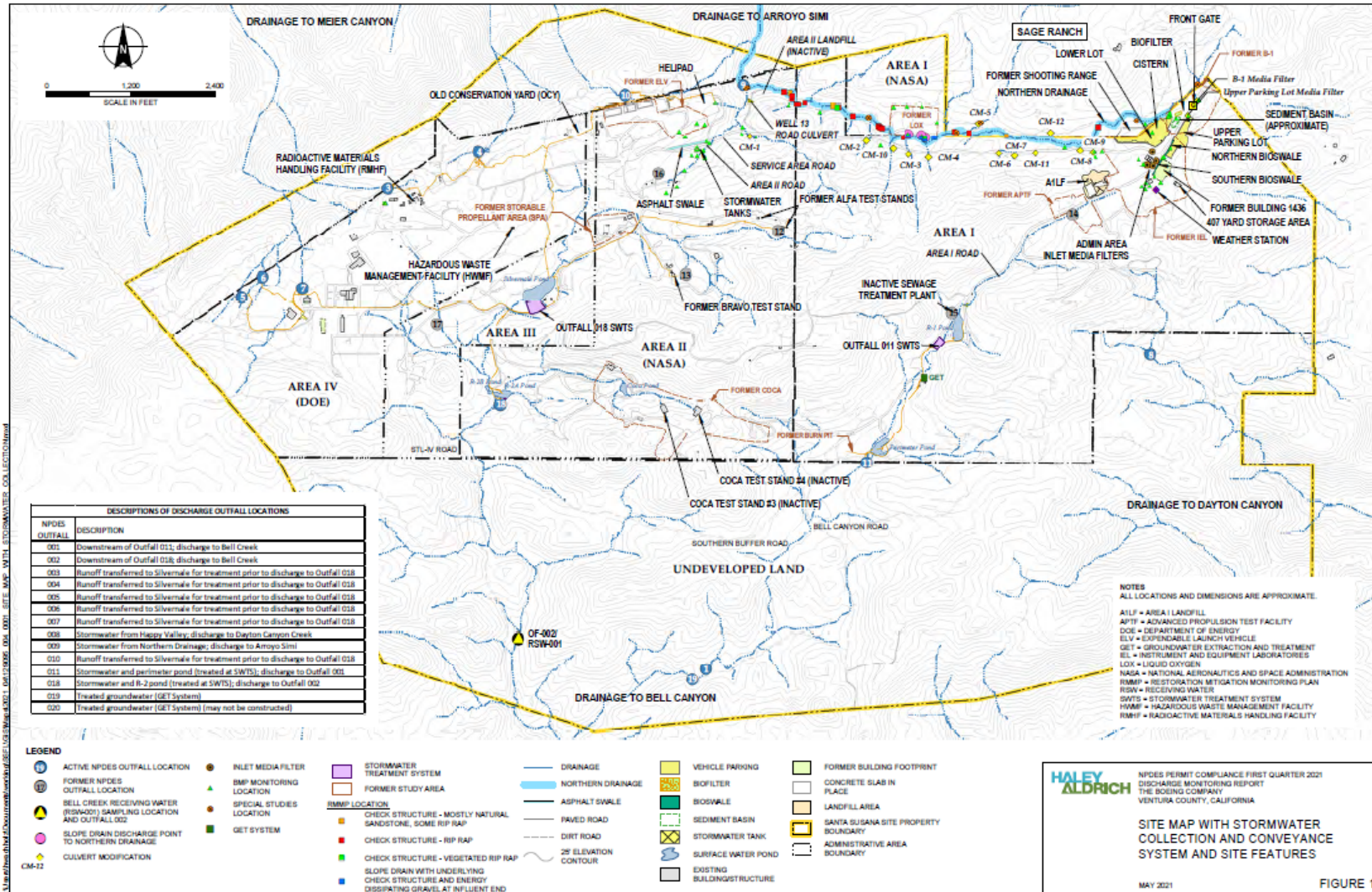
AMEL	Average Monthly Effluent Limitation
Basin Plan	<i>Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties</i>
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BEF	Bioaccumulation Factor
BMP	Best Management 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
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
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
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
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 (EPA/505/2-90-001,1991)</i>
TSS	Total Suspended Solids
TST	Test of Significant Toxicity
U.S. EPA	United States Environmental Protection Agency
Water Code	California Water Code
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Waste Load Allocations
WQBELs	Water Quality-Based Effluent Limitations
WQO	Water Quality Objective

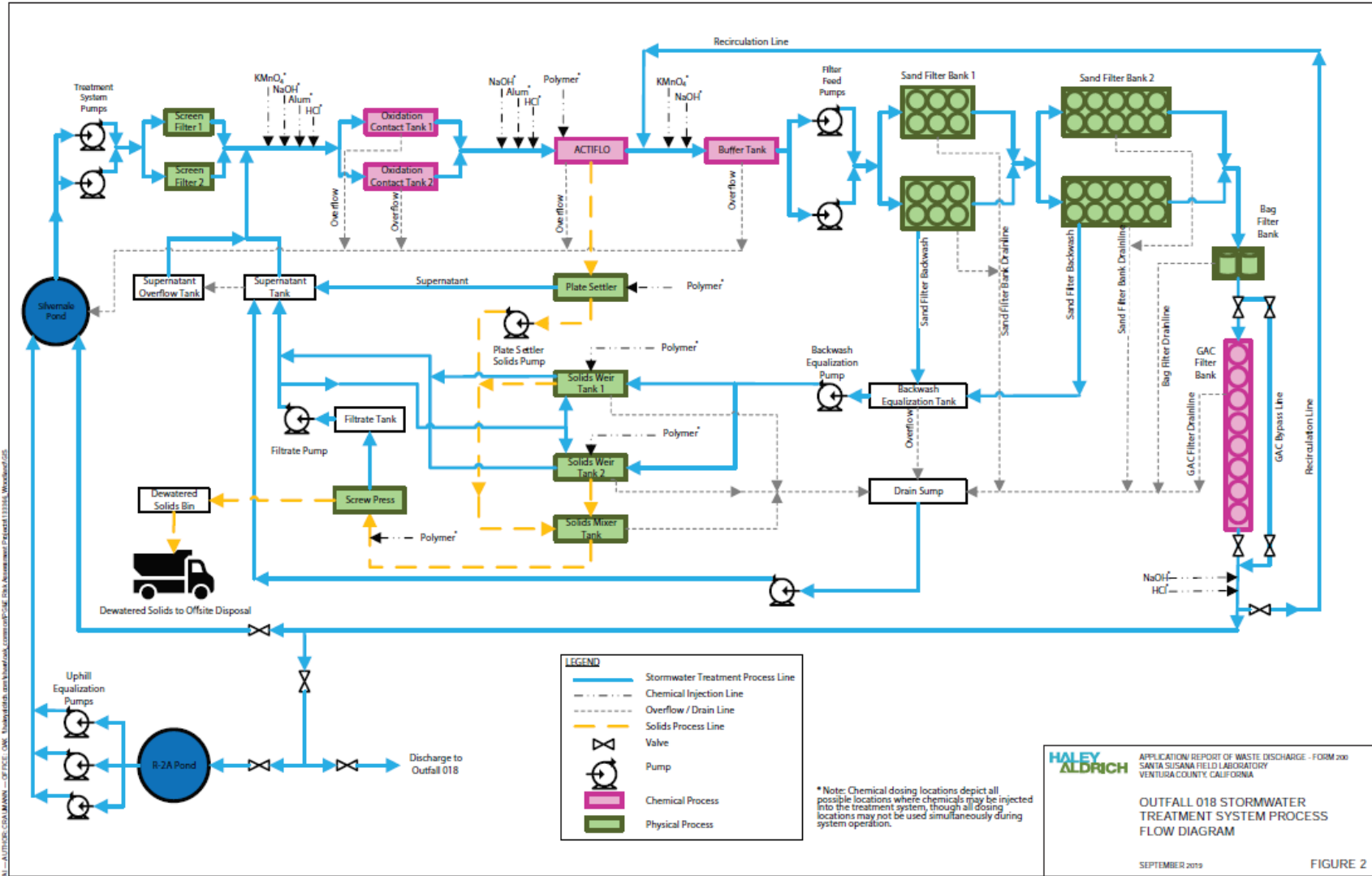
ATTACHMENT B-1 – FACILITY LOCATION MAP



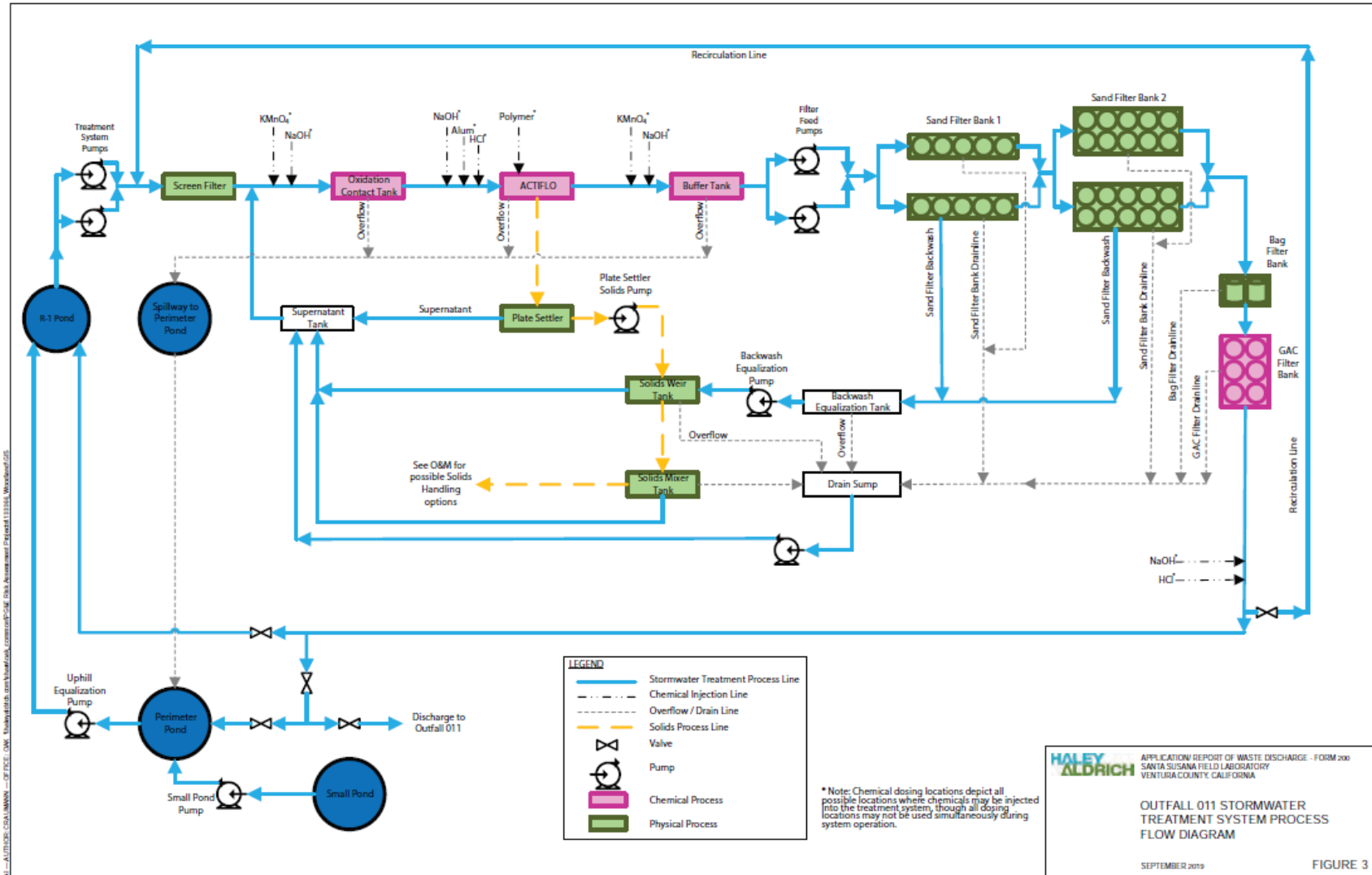
ATTACHMENT B-2 – FACILITY SITE MAP



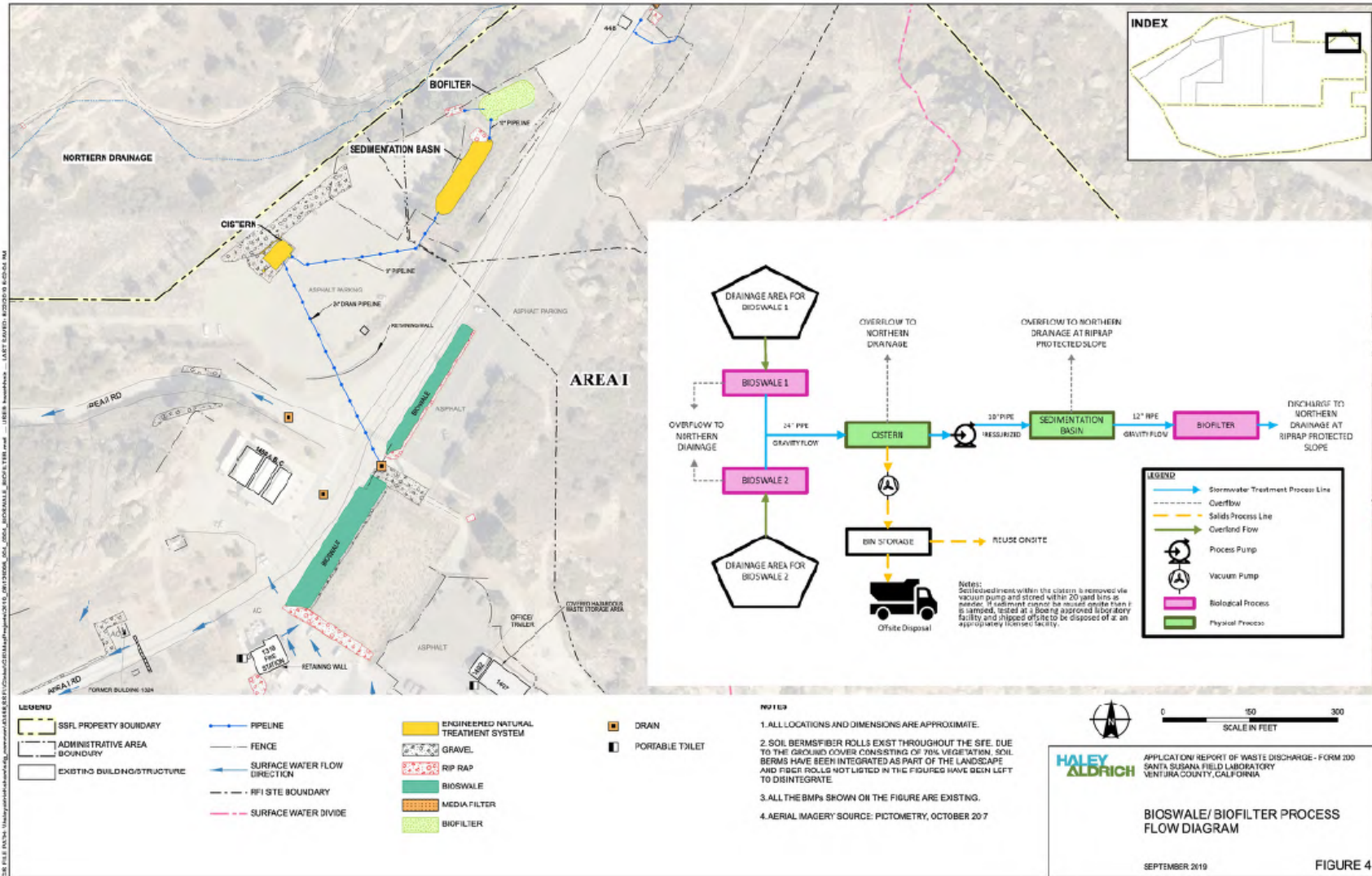
ATTACHMENT C-3 – STORMWATER TREATMENT SYSTEM FLOW SCHEMATIC OUTFALL 018



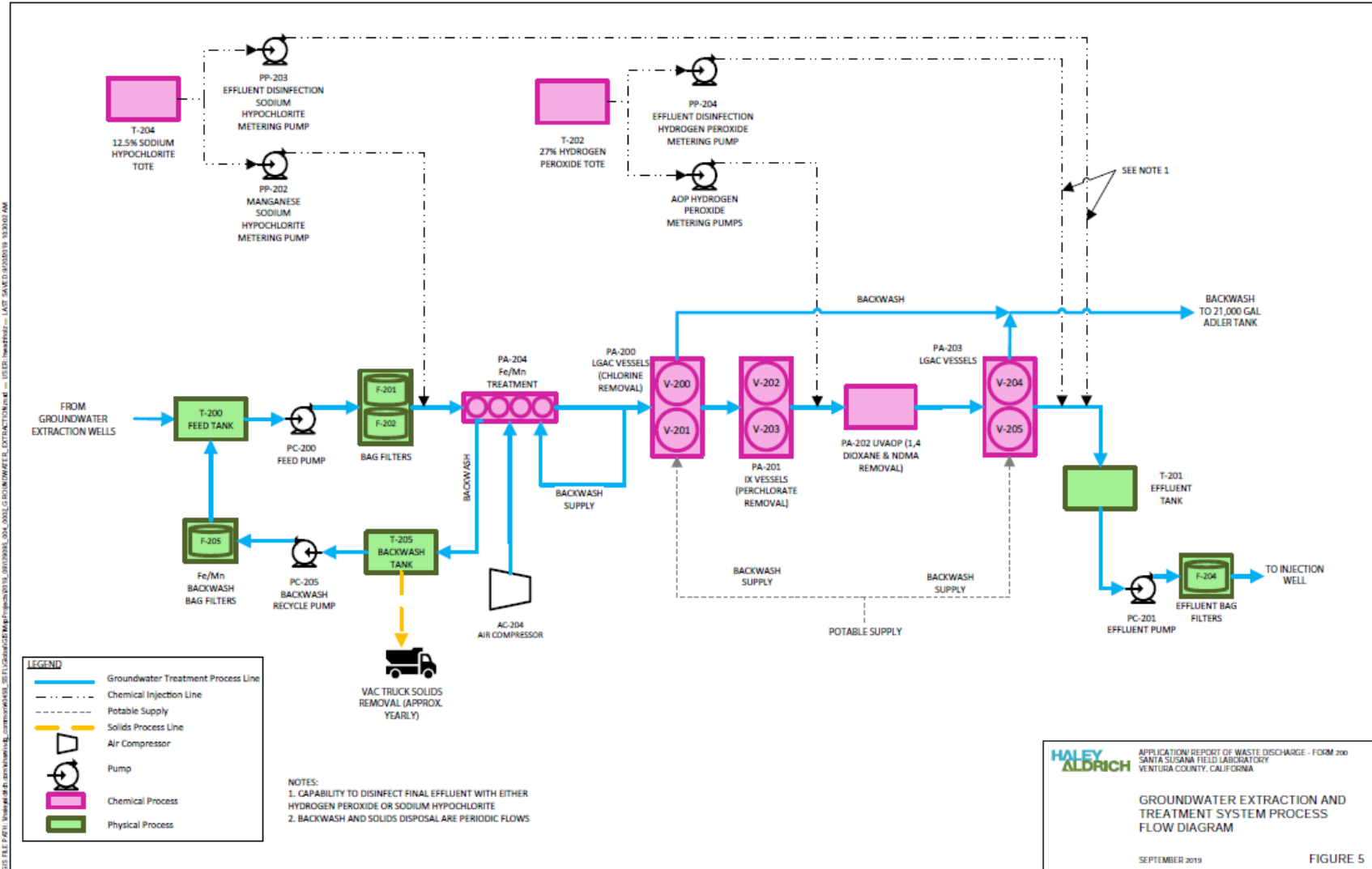
ATTACHMENT C-4 – STORMWATER TREATMENT SYSTEM FLOW SCHEMATIC OUTFALL 011



ATTACHMENT C-5 – BIOSWALE / BIOFILTER FLOW SCHEMATIC AREA I



ATTACHMENT C-6 – 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. (40 Code of Federal Regulations (CFR) § 122.41(a); Wat. Code, §§ 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); Wat. Code, §§ 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); Wat. Code, §§ 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); Wat. Code, §§ 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); Wat. Code, §§ 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); Wat. Code, §§ 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, 2020, 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 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 Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions [section 122.41(a)(2)] [Water Code sections 13385 and 13387].
- 6.3 Any person may be assessed an administrative penalty by the Los Angeles Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under

section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000 [40 CFR section 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 section 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 section 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 ($\mu\text{g/L}$) (40 CFR § 122.42(a)(1)(i));
- b. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4 dinitrophenol and 2-methyl 4,6 dinitrophenol; and 1 milligram per liter (mg/L) for antimony (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

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP 6113)

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. An effluent sampling station shall be established for the point of discharge and shall be located where representative samples of the treated effluent can be obtained. The coordinates for Discharge Points and the corresponding effluent monitoring location shall be reported in the self-monitoring report.
- 1.2. 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.
- 1.3. Effluent samples shall be taken downstream of any treatment works and prior to mixing with the receiving waters.
- 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 Board, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from the State Water Resources Control Board, Drinking Water Division, Environmental Laboratory Accreditation Program.
- 1.6. 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.
- 1.7. 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.*”
- 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, benchmarks, 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.
- 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.

Where no U.S. EPA-approved method exists, 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:

- 1.10.1. When the pollutant under consideration is not included in Appendix 4 of the SIP;
- 1.10.2. 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);
- 1.10.3. When the Discharger agrees to use an ML that is lower than that listed in Appendix 4 of the SIP;

- 1.10.4. 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,
- 1.10.5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the U.S. EPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the 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. Water/wastewater samples must 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.
- 1.12. 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.
- 1.13. 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.
- 1.14. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments to ensure accuracy of measurements or shall insure that both equipment activities will be conducted.
- 1.15. 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.

1.16. 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

1.17. 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.

1.18. 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:

- 1.18.1. Types of wastes and quantity of each;
- 1.18.2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and
- 1.18.3. Location of the final point(s) of disposal for each type of waste.

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

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

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

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
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)
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
020		No longer proposed (will not be constructed). Treated groundwater is being injected, if upset in system, flows would be captured at EFF-011.
001	INF-001	Outfall 11 SWTS Influent
002	INF-002	Outfall 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.
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.

3. INFLUENT MONITORING REQUIREMENTS

The Discharger shall initiate influent monitoring at the Outfall 11 and Outfall 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 Outfall 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 Outfall 011 and INF-002 for the influent pumped from the Silvernale pond to the SWTS at Outfall 018. Monitoring shall be consistent with the Effluent Monitoring pollutants listed for Outfalls 001, 002, 011, and 018 as identified in Table E-2.

3.1. Monitoring Location INF-001 & INF-002

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	Grab	(Note a)	(Note b)
Oil and Grease	mg/L	Grab	(Note a)	(Note b)
pH	standard units	Grab	(Note a)	(Note b)
Ammonia - N	mg/L	Grab	(Note a)	(Note b)
Barium	mg/L	Grab	(Note a)	(Note b)
Boron	mg/L	Grab	(Note a)	(Note b)
Chloride	mg/L	Grab	(Note a)	(Note b)
Chlorine, Total Residual	mg/L	Grab	(Note a)	(Note b)
Chronic Toxicity	Pass or Fail and % Effect (TST)	Grab	(Note a)	(Note c)
Cobalt	µg/L	Grab	(Note a)	(Note b)
E. Coli	CFU/100mL or MPN/100mL	Grab	(Note a)	(Note b)
Conductivity	µmhos/cm	Grab	(Note a)	(Note b)
Detergents (as MBAS)	mg/L	Grab	(Note a)	(Note b)
Dissolved Oxygen	mg/L	Grab	(Note a)	(Note b)
Fluoride	mg/L	Grab	(Note a)	(Note b)
Hardness (as mg/L CaCO3)	mg/L	Grab	(Note a)	(Note b)
Nitrate+Nitrite-N	mg/L	Grab	(Note a)	(Note b)
Nitrate-N	mg/L	Grab	(Note a)	(Note b)

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Nitrite-N	mg/L	Grab	(Note a)	(Note b)
Perchlorate	µg/L	Grab	(Note a)	(Note b)
Settleable Solids	mL/L	Grab	(Note a)	(Note b)
Sulfate	mg/L	Grab	(Note a)	(Note b)
Temperature	°F	Grab	(Note a)	(Note b)
Total Dissolved Solids	mg/L	Grab	(Note a)	(Note b)
Turbidity	NTU	Grab	(Note a)	(Note b)
Vanadium	µg/L	Grab	(Note a)	(Note b)
Radioactivity - Gross Alpha	pCi/L	Grab	(Note a)	(Notes d and e)
Radioactivity - Gross Beta	pCi/L	Grab	(Note a)	(Notes d and e)
Combined Radium 226 & Radium 228	pCi/L	Grab	(Note a)	(Notes d and e)
Tritium (H-3)	pCi/L	Grab	(Note a)	(Notes d and e)
Strontium-90	pCi/L	Grab	(Note a)	(Notes d and e)
K-40 (Potassium-40)	pCi/L	Grab	(Note a)	(Notes d and e)
CS-137	pCi/L	Grab	(Note a)	(Notes d and e)
Uranium	pCi/L	Grab	(Note a)	(Notes d and e)
Monomethyl hydrazine	µg/L	Grab	(Note a)	(Note b)
cis-1,2-Dichloroethene	µg/L	Grab	(Note a)	(Note b)
1,4-Dioxane	µg/L	Grab	(Note a)	(Note b)
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	Grab	(Note a)	(Note b)
1,2-Dichloro-1,1,2-trifluoroethane	µg/L	Grab	(Note a)	(Note b)
Cyclohexane	µg/L	Grab	(Note a)	(Note b)
Antimony, TR	µg/L	Grab	(Note a)	(Note b)
Arsenic, TR	µg/L	Grab	(Note a)	(Note b)
Beryllium, TR	µg/L	Grab	(Note a)	(Note b)
Cadmium, TR	µg/L	Grab	(Note a)	(Note b)
Chromium (VI), TR	µg/L	Grab	(Note a)	(Note b)
Copper, TR	µg/L	Grab	(Note a)	(Note b)
Lead, TR	µg/L	Grab	(Note a)	(Note b)
Mercury, TR	µg/L	Grab	(Note a)	(Note f)
Nickel, TR	µg/L	Grab	(Note a)	(Note b)
Selenium, TR	µg/L	Grab	(Note a)	(Note b)
Silver, TR	µg/L	Grab	(Note a)	(Note b)
Thallium, TR	µg/L	Grab	(Note a)	(Note b)

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Zinc, TR	µg/L	Grab	(Note a)	(Note b)
Cyanide	µg/L	Grab	(Note a)	(Note b)
TCDD Equivalents	µg/L	Grab	(Note a)	(Note b)
1,2-Dichloroethane	µg/L	Grab	(Note a)	(Note b)
1,1-Dichlorethylene	µg/L	Grab	(Note a)	(Note b)
Trichloroethylene	µg/L	Grab	(Note a)	(Note b)
Pentachlorophenol	µg/L	Grab	(Note a)	(Note b)
2,4,6-Trichlorophenol	µg/L	Grab	(Note a)	(Note b)
Bis(2-ethylhexyl)phthalate	µg/L	Grab	(Note a)	(Note b)
2,4-Dinitrotoluene	µg/L	Grab	(Note a)	(Note b)
N-Nitrosodimethylamine	µg/L	Grab	(Note a)	(Note b)
alpha-BHC	µg/L	Grab	(Note a)	(Note b)
PCBs	µg/L	Grab	(Note a)	(Note b)
Remaining Priority Pollutants (excluding asbestos)	µg/L	Grab	(Note a)	(Note g)

Footnotes for Table E-2

- a. Monitoring shall be once per year from the effective date of this permit. Samples shall be collected during the initiation of the treatment system for calibration. Samples shall not be collected while treatment system is in recirculation mode as these samples would not be representative.
- b. 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.
- c. Refer to section E-5, Whole Effluent Toxicity Testing Requirements.
- d. 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 908.0 for uranium, method 901.0 or 901.1 for Cesium, and method 905.0 for strontium- 90.
- e. Gross alpha and gross beta analysis must be performed. If gross alpha is >15 pCi/L, uranium analysis must be performed.
- f. Mercury shall be analyzed using EPA method 1631E, per 40 CFR part 136.
- g. 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.

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 stormwater at Effluent Monitoring Stations EFF-001, EFF-002, EFF-011 and EFF-018 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-3. Effluent Monitoring at Locations EFF-001, EFF-002, EFF-011, EFF-018

Parameter	Units	Sample Type	Sampling Frequency (Note a)	Required Analytical Test Method
Total Flow (Note b)	Gallons/Day	Measure	1/Discharge	--
Rainfall	Inches	Continuous	Continuous	--

Conventional Pollutants	Units	Sample Type (Note c)	Sampling Frequency (Note a)	Required Analytical Test Method
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	Composite	1/Discharge Event	(Note d)
Oil and Grease	mg/L	Grab	1/Discharge Event	(Note d)
pH	standard units	Grab	1/Discharge Event	(Note d)
Total Suspended Solids (TSS)	mg/L	Composite	1/Discharge Event	(Note d)

Non-Conventional Pollutants	Units	Sample Type (Note c)	Sampling Frequency (Note a)	Required Analytical Test Method
Barium	mg/L	Composite	1/Year	(Note d)
Boron	mg/L	Composite	1/Year	(Note d)
Chloride	mg/L	Composite	1/Discharge Event	(Note d)
Chlorine, Total Residual	mg/L	Grab	1/Year	(Note d)
Chronic Toxicity	Pass or Fail and % Effect (TST)	Grab	1/Year	(Note e)
Cobalt	µg/L	Composite	1/Year	(Note d)
E. coli	CFU/100mL or	Grab	1/Year	(Note d)

Non-Conventional Pollutants	Units	Sample Type (Note c)	Sampling Frequency (Note a)	Required Analytical Test Method
	MPN/100m L			
Conductivity at 25 °C	µmhos/cm	Grab	1/Discharge Event	(Note d)
Detergents (as MBAS)	mg/L	Composite	1/Discharge Event	(Note d)
Dissolved Oxygen	mg/L	Grab	1/Discharge Event	(Note d)
Fluoride	mg/L	Composite	1/Year	(Note d)
Hardness (as mg/L CaCO ₃)	mg/L	Composite	1/Year	(Note d)
Iron	mg/L	Composite	1/Year	(note d)
Manganese	µg/L	Composite	1/Year	(note d)
Ammonia – N	mg/L	Grab	1/Discharge Event	(Note d)
Nitrate-N	mg/L	Composite	1/Discharge Event	(Note d)
Nitrite-N	mg/L	Composite	1/Discharge Event	(Note d)
Nitrate + Nitrite-N	mg/L	Composite	1/Discharge Event	(Note d)
Perchlorate	µg/L	Composite	1/Year	(Note d)
Settleable Solids	mL/L	Grab	1/Discharge Event	(Note d)
Sulfate	mg/L	Composite	1/Discharge Event	(Note d)
Temperature	°F	Grab	1/Discharge Event	(Note d)
Total Dissolved Solids	mg/L	Composite	1/Discharge Event	(Note d)
Total Organic Carbon	mg/L	Composite	1/Year	(Note d)
Turbidity	NTU	Composite	1/Discharge Event	(Note d)
Vanadium	µg/L	Composite	1/Year	(Note d)
Radioactivity - Gross Alpha	pCi/L	Composite	1/Discharge Event	(Notes f and g)
Radioactivity - Gross Beta	pCi/L	Composite	1/Discharge Event	(Notes f and g)
Combined Radium 226 & Radium 228	pCi/L	Composite	1/Discharge Event	(Notes f and g)
Tritium (H-3)	pCi/L	Composite	1/Discharge Event	(Notes f and g)
Strontium-90	pCi/L	Composite	1/Discharge Event	(Notes f and g)
K-40 (Potassium-40)	pCi/L	Composite	1/Discharge Event	(Notes f and g)
CS-137	pCi/L	Composite	1/Discharge Event	(Notes f and g)

Non-Conventional Pollutants	Units	Sample Type (Note c)	Sampling Frequency (Note a)	Required Analytical Test Method
Uranium	µCi/L	Composite	1/Discharge Event	(Notes f and g)
Monomethyl hydrazine	µg/L	Grab	1/Discharge Event	(Note d)
cis-1,2-Dichloroethene	µg/L	Grab	1/Discharge Event	(Note d)
1,4-Dioxane	µg/L	Composite	1/Discharge Event	(Note d)
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	Composite	1/Discharge Event	(Note d)
1,2-Dichloro-1,1,2-trifluoroethane	µg/L	Composite	1/Discharge Event	(Note d)
Cyclohexane	µg/L	Composite	1/Discharge Event	(Note d)

Priority Pollutants	Units	Sample Type (Note c)	Sampling Frequency (Note a)	Required Analytical Test Method
Antimony, TR	µg/L	Composite	1/Year	(Notes d and h)
Arsenic, TR	µg/L	Composite	1/Year	(Notes d and h)
Beryllium, TR	µg/L	Composite	1/Year	(Notes d and h)
Cadmium, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Chromium (VI), TR	µg/L	Composite	1/Year	(Notes d, h and i)
Copper, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Lead, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Mercury, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Nickel, TR	µg/L	Composite	1/Year	(Notes d and h)
Selenium, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Silver, TR	µg/L	Composite	1/Year	(Notes d and h)
Thallium, TR	µg/L	Composite	1/Year	(Notes d and h)
Zinc, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Cyanide	µg/L	Composite	1/Discharge Event	(Note d)
TCDD Equivalents (Note j)	µg/L	Composite	1/Discharge Event	(Note d)
1,2-Dichloroethane	µg/L	Composite	1/Discharge Event	(Note d)
1,1-Dichloroethylene	µg/L	Composite	1/Discharge Event	(Note d)

Priority Pollutants	Units	Sample Type (Note c)	Sampling Frequency (Note a)	Required Analytical Test Method
Trichloroethylene	µg/L	Composite	1/Discharge Event	(Note d)
Pentachlorophenol	µg/L	Composite	1/Discharge Event	(Note d)
2,4,6-Trichlorophenol	µg/L	Composite	1/Discharge Event	(Note d)
Bis(2-ethylhexyl)phthalate	µg/L	Composite (Note d)	1/Discharge Event	(Note d)
2,4-Dinitrotoluene	µg/L	Composite	1/Discharge Event	(Note d)
N-Nitrosodimethylamine	µg/L	Composite	1/Discharge Event	(Note d)
alpha-BHC	µg/L	Composite	1/Discharge Event	(Note d)
PCBs (Note k)	µg/L	Grab	1/Year	(Note d)
Remaining Priority Pollutants (excluding asbestos) (Note l)	µg/L	Grab or Composite as appropriate	1/Year	(Note d)

Footnotes for Table E-3

- a. During wet weather flow, a discharge event is greater than 0.1 inch of rainfall in a 24-hour period. No more than one sample per week need be obtained during extended periods of rainfall and a storm event must be preceded by at least 72 hours of dry weather, except as provided below. 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 Outfalls 001 or 002, prior to a concurrent discharge event from Outfalls 011 or 018, respectively, then additional samples shall be collected from Outfall 001 or 002, once there is a corresponding discharge event at Outfall 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. During dry weather flow, whenever Outfalls 001, 002, 011, or 018 is discharging, minimum sampling frequency during operations generating discharges shall be once per month.
- b. Flow shall be recorded daily during each period of discharge. Periods of no flow shall also be reported.
- c. 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.

- 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. Gross alpha and gross beta analysis must be performed. Gross alpha analysis must be less than or equal to 15 pCi/L. If gross alpha is greater than 15 pCi/L, uranium analysis must be performed and must be less than 30 µg/L (20 pCi/L). Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and Radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be less than or equal to 5pCi/L. If gross alpha is less than 5 pCi/L, one can assume Ra-226 activity is equal to gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross beta, H-3, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be less than or equal to 50 pCi/L. However, if gross beta is greater than 50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the 50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta is greater than 50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters do not exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include H-3 and Sr-90. If during the preceding 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.
- 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.

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

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 or PCBs as congeners is 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. 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. PCBs as congeners shall be analyzed using EPA Method 1668c for three years and an alternate method may be used if none of the PCB congeners are detected for three years using EPA Method 1668c. 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 stormwater runoff 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

Parameter	Units	Sample Type	Sampling Frequency (Note a)	Required Analytical Test Method
Total Flow (Note b)	Gallons/Day	Measure	1/Discharge	--
Rainfall	Inches	Continuous	Continuous	--

Conventional Pollutants	Units	Sample Type (Note c)	Sampling Frequency (Note a)	Required Analytical Test Method
Oil and Grease	mg/L	Grab	1/Discharge Event	(Note d)
pH	standard units	Grab	1/Discharge Event	(Note d)
Total Suspended Solids (TSS)	mg/L	Composite	1/Discharge Event	(Note d)

Non-Conventional Pollutants	Units	Sample Type (Note c)	Sampling Frequency (Note a)	Required Analytical Test Method
Aluminum	mg/L	Composite	1/Year	(Note d)
Ammonia – N	mg/L	Composite	1/Discharge Event	(Note d)
Barium	mg/L	Composite	1/Year	(Note d)
Boron	mg/L	Composite	1/Year	(Note d)
Chloride	mg/L	Composite	1/Discharge Event	(Note d)
Chlorine, Total Residual	mg/L	Composite	1/Year	(Note d)
Chronic Toxicity	Pass or Fail and % Effect (TST)	Composite	1st & 2nd Rain Events of Each Year	(Note e)
Cobalt	µg/L	Composite	1/Year	(Note d)
E. coli	CFU/100mL or MPN/100mL	Grab	1/Year	(Note d)

Non-Conventional Pollutants	Units	Sample Type (Note c)	Sampling Frequency (Note a)	Required Analytical Test Method
Detergents (as MBAS)	mg/L	Composite	1/Discharge Event	(Note d)
Dissolved Oxygen	mg/L	Grab	1/Discharge Event	(Note d)
Fluoride	mg/L	Composite	1/Year	(Note d)
Hardness (as mg/L CaCO ₃)	mg/L	Composite	1/Year	(Note d)
Iron	mg/L	Composite	1/Year	(note d)
Manganese	µg/L	Composite	1/Year	(note d)
Nitrate + Nitrite-N	mg/L	Composite	1/Discharge Event	(Note d)
Nitrate-N	mg/L	Composite	1/Discharge Event	(Note d)
Nitrite-N	mg/L	Composite	1/Discharge Event	(Note d)
Perchlorate	µg/L	Composite	1/Discharge Event	(Note d)
Settleable Solids	mL/L	Composite	1/Discharge Event	(Note d)
Sulfate	mg/L	Composite	1/Discharge Event	(Note d)
Temperature	°F	Grab	1/Discharge Event	(Note d)
Total Dissolved Solids	mg/L	Composite	1/Discharge Event	(Note d)
Vanadium	µg/L	Composite	1/Year	(Note d)
Radioactivity- Gross Alpha Gross Beta	pCi/L	Composite	1/Discharge Event	(Notes f and g)
Combined Radium 226 & Radium 228	pCi/L	Composite	1/Discharge Event	(Notes f and g)
Tritium (H-3)	pCi/L	Composite	1/Discharge Event	(Notes f and g)
Strontium-90	pCi/L	Composite	1/Discharge Event	(Notes f and g)
K-40 (Potassium-40)	pCi/L	Composite	1/Discharge Event	(Notes f and g)
CS-137	pCi/L	Composite	1/Discharge Event	(Notes f and g)
Uranium	pCi/L	Composite	1/Discharge Event	(Notes f and g)
Chlorpyrifos	µg/L	Composite	1/Year	(Note d)
Diazinon	µg/L	Composite	1/Year	(Note d)

Priority Pollutants	Units	Sample Type (Note d)	Sampling Frequency (Note b)	Required Analytical Test Method
Antimony, TR	µg/L	Composite	1/Year	(Notes d and h)
Arsenic, TR	µg/L	Composite	1/Year	(Notes d and h)

Priority Pollutants	Units	Sample Type (Note d)	Sampling Frequency (Note b)	Required Analytical Test Method
Beryllium, TR	µg/L	Composite	1/Year	(Notes d and h)
Cadmium, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Chromium (VI), TR	µg/L	Composite	1/Year	(Notes d, h, and i)
Copper, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Lead, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Mercury, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Nickel, TR	µg/L	Composite	1/Year	(Notes d and h)
Selenium, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Silver, TR	µg/L	Composite	1/Year	(Notes d and h)
Thallium, TR	µg/L	Composite	1/Year	(Notes d and h)
Zinc, TR	µg/L	Composite	1/Discharge Event	(Notes d and h)
Cyanide	µg/L	Composite	1/Discharge Event	(Note d)
TCDD Equivalents (Note j)	µg/L	Composite	1/Discharge Event	(Note d)
Asbestos (Note k)	Million Fibers/L	Grab or Composite as appropriate	1/Year	(Note d)
Remaining Priority Pollutants (Note l)	µg/L	Grab or Composite as appropriate	1/Year	(Note d)

Footnotes for Table E-4

- a. During wet weather flow, a discharge event is greater than 0.1 inch of rainfall in a 24-hour period. No more than one sample per week need be obtained during extended periods of rainfall and a storm event must be preceded by at least 72 hours of dry weather. 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.
- b. Flow shall be recorded daily during each period of discharge. Periods of no flow shall also be reported.
- c. 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.
- 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. Gross alpha and gross beta analysis must be performed. Gross alpha analysis must be less than or equal to 15 pCi/L. If gross alpha is greater than 15 pCi/L, uranium analysis must be performed and must be less than 30 µg/L (20 pCi/L). Compliance with this Order shall then be based on comparing gross alpha minus total uranium to the gross alpha limit of 15 pCi/L. Radium-226 and Radium-228 analysis must be performed, and combined Radium-226 and Ra-228 activity must be less than or equal to 5pCi/L. If gross alpha is less than 5 pCi/L, one can assume Ra-226 activity is equal to gross alpha activity for purposes of meeting the 5 pCi/L limit. Gross beta, H-3, K-40, and Sr-90 analyses must be performed. Gross beta analysis must be less than or equal to 50 pCi/L. However, if gross beta is greater than 50 pCi/L, compliance with this Order shall be based on comparing gross beta minus K-40 to the 50 pCi/L gross beta limitation. The gross beta limit is 50 pCi/L, after subtraction of K-40 activity. The K-40 is assumed to be all natural. The H-3 limit is 20,000 pCi/L, and the Sr-90 limit is 8 pCi/L. If gross beta is greater than 50 pCi/L (after subtracting K-40 activity) gamma isotopic analysis must be performed for Cs-137 (the most likely emitter associated with the site). The sum of the fractions technique must be used to demonstrate that the gamma emitters do not exceed 4 mrem/year (200 pCi/L for Cs-137). The sum of the fractions must include H-3 and Sr-90. If during the preceding 12-month period, the average of the data exceeds the limit, then the Discharger is in violation of the limit.
 - 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.

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

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
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 outfall location.
- l. Priority Pollutants as defined by the California Toxics Rule (CTR) defined in 40 CFR Part 131.38.

End of Footnotes for Table E-4

5. 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 outfalls discharging to receiving waters with salinity <1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples at the in-stream waste concentration for the discharge in accordance with species and test methods in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/821/R-02/013, 2002; 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

The Permittee shall conduct the first species sensitivity screening for chronic aquatic toxicity prior to permit reissuance, but no later than 18 months prior to the expiration of this order, Order R4-2022-xxxx.

For non-continuous dischargers, a set of testing shall be conducted in each quarter in which there is expected to be at least 15 days of discharge. For non-continuous dischargers that discharge in only one quarter of the year in which there is expected to be at least 15 days of discharge, two sets of testing shall be conducted within the same quarter. In each of the sets, the Permittee shall collect a single effluent sample to initiate 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 on a monthly frequency for the discharge, during that given month. As allowed under the test method for the *Ceriodaphnia dubia* and the *Pimephales promelas*, a second and third sample may be collected for use as test solution renewal water as the seven-day toxicity test progresses. However, that same sample shall be used to renew both the *Ceriodaphnia dubia* and the *Pimephales promelas*.

If the result of all three species is "Pass", then the species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be considered the most sensitive species in a given set. If only one species fails, then that species shall be considered the most sensitive species in a given set. The species that had more fails in the sets shall be considered the most sensitive species and shall be used for routine monitoring during the next permit cycle. If two or more species result in "Fail," then the species that exhibits the highest "Percent Effect" at the discharge IWC during the four sets of species sensitivity screening shall be used for routine monitoring during the next permit cycle.

During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

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. 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. The Median Monthly Effluent Limit (MMEL) for chronic toxicity only applies 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”. This requirement is not applicable to the industrial stormwater discharge.
- 5.5.3. 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)

- 5.5.4. Dilution water and control water, including brine controls, shall be 1-µm-filtered uncontaminated natural seawater, hypersaline brine prepared using uncontaminated natural seawater, or 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.
- 5.5.5. Reference toxicant test results should be reviewed and reported. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.). Monthly reference toxicant testing is sufficient.
- 5.5.6. 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 C.F.R. Part 136) (EPA 821-B-00-004, 2000).
- 5.5.7. 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 the *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 TRE Work Plan must describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum the work plan shall include:

- 5.2.1. 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.
- 5.2.2. A description of the Facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility; and,
- 5.2.3. 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. 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 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. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.
- 5.7.5. The Los Angeles Water Board and U.S. EPA recognize 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:

- 5.4.1. 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
- 5.5.2. Water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
- 5.5.3. 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.

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

5.5.5. 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 and RSW-002

The Discharger shall monitor the receiving water at Monitoring Locations RSW-001 (Bell Creek) and RSW-002 (Arroyo Simi) as follows:

Table E-6. Receiving Water Monitoring Requirements for RSW-001 and RSW-002

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

RSW-002 Parameters	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Water Velocity	Ft/second	Recorder	1/Quarter	(Note a)
pH	standard units	Grab	1/Quarter	(Notes a and b)
Hardness (as mg/L CaCO ₃)	mg/L	Grab	1/Quarter	(Notes a and b)

RSW-002 Parameters	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
TSS	mg/L	Grab	1/Year	(Note a)
<i>E. coli</i>	(MPN or CFU per 100 mL)	Grab	1/Year	(Note a and c)
Temperature	°F	Grab	1/Quarter	(Notes a and d)
TCDD – Equivalents (Note e)	µg/L	Grab	1/Year	(Note a)
Chlorpyrifos	µg/L	Grab	1/Quarter	(Note a)
Diazinon	µg/L	Grab	1/Quarter	(Note a)
Chlordane	µg/L	Grab	1/Quarter	(Notes a and d)
4,4'-DDD	µg/L	Grab	1/Quarter	(Notes a and d)
4,4'-DDE	µg/L	Grab	1/Quarter	(Notes a and d)
4,4'-DDT	µg/L	Grab	1/Quarter	(Notes a and d)
Dieldrin	µg/L	Grab	1/Quarter	(Notes a and d)
PCBs	µg/L	Grab	1/Quarter	(Notes a and d)
Toxaphene	µg/L	Grab	1/Quarter	(Notes a and d)
Priority Pollutants	µg/L	Grab	Once every five years	(Notes a and b)

Footnotes for Table E-6

- 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. Receiving water samples for pH, hardness, and priority pollutants must be collected on the same day as the sampling event for the effluent sample.
- c. Bacteria Limitations

Limitations for RSW-001 at Bell Creek,

- 1) Geometric Mean Limit:
Five samples equally spaced over a 30-day period are required.
 - a) *E. coli* density shall not exceed 126/100 ml.
- 2) Single Sample Maximum Limit:
 - a) *E. coli* density shall not exceed 235/100 ml.

Limitations for RSW-002 at Arroyo Simi

- 1) Geometric Mean Limit:
Weekly samples equally spaced over a 6-week period are required.
 - a) *E. coli* density shall not exceed 100/100 ml.
- 2) Statistical Threshold Value Limit:

The applicable statistical threshold value shall not be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner

- a) E. coli density shall not exceed 320/100 ml.

If any of the single sample maximum or statistical threshold value limits 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.

- d. 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.
- e. 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
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 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 Outfalls) 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

9. 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

Parameter	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
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

10. OTHER MONITORING REQUIRMENTS

10.1. Rainfall Monitoring

The Discharger shall measure and record the rainfall on each day of the month at the Facility. If no rainfall measurement data is available at the Facility, the Discharger may 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.

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

- 10.2.1. 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.
- 10.2.2. 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 11.2.2.

11. REPORTING REQUIREMENTS

11.1. General Monitoring and Reporting Requirements

- 11.1.1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
- 11.1.2. 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.
- 11.1.3. If the Discharger conducts monitoring more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the monitoring report. These results shall be reflected in the calculation of the average (or median) used in demonstrating compliance with this Order.
- 11.1.4. 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.
- 11.1.5. 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.
- 11.1.6. The Discharger shall report the results of chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section 5.4.

11.1.7 The Discharger shall electronically submit all reports as required 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.

11.2. Self-Monitoring Reports (SMRs)

11.2.1. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections 3-9. 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.

11.2.2. 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 (Note a)
1/Discharge Event	Permit effective date	Greater than 0.1 inch of rainfall in a 24-hour period that reasonably represents a calendar day for purposes of sampling	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	February 15 (Note b)

Footnote for Table E-8

- a. Samples collected and data analyzed per the monitoring period noted shall be submitted with the applicable quarterly SMR.
- b. Submit with fourth quarter SMR. The Surface Water Expert Panel Annual Report shall include information related to background/BMP performance analysis and any special studies for the prior storm season and shall be submitted by October 31 of each year.

End of Footnotes for Table E-8

- 11.2.3. **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:
- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
 - b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported. 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.
 - c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
 - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
- 11.2.4. **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).
- 11.2.5. **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.

11.2.6. 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.

11.3. 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

11.4. Other Reports

11.4.1. 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.

11.4.2. Climate Change Effects Vulnerability Assessment and Mitigation Plan

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

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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 91204-1148 (Ventura County)
Facility Contact, Title and Phone	Jeffrey Wokurka, Environmental Remediation Environment, Health & Safety (818) 466-8800
Authorized Person to Sign and Submit Reports	Steven L. Shestag, Director Environment (818) 466-8822
Mailing Address	5800 Woolsey Canyon Road Canoga Park, CA 91304-1148
Billing Address	Same as above
Type of Facility	Research and Development
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. Because Boeing conducted its own industrial activity at SSFL and it also conducted industrial activity as a contractor acting on behalf of DOE and NASA, Boeing currently holds the NPDES permit for the discharge of all stormwater from 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 and Arroyo Simi, 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. 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. The terms and conditions of the previous permit were administratively extended pursuant to 40 Code of Federal Regulations (C.F.R.) section 122.6 and remained in effect until new Waste Discharge Requirements and an NPDES permit were adopted pursuant to this Order. Attachment B provides a map of the area around the Facility. Attachment C-1 provides a site map with outfall locations.
- 1.3. 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 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.

2. FACILITY DESCRIPTION

The 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. The DOE also owns 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.

The developed portion of the site comprises approximately 1,500 acres. Boeing and its predecessors' operations at SSFL since 1950 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, and 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. Three of the test stands and the associated spillways remain onsite.

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 the 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 also discharged from the SSFL site; however, discharges to surface water ceased in 2012. Treated groundwater is currently reinjected. Therefore, the outfalls associated with the discharge from the Groundwater Extraction Treatment System (GETS) have been removed and the discharge of treated groundwater is no longer regulated by this Order. Sanitary wastewater generated from onsite activities is containerized and transported offsite for treatment and disposal.

2.2. Discharge Points and Receiving Waters

The 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 (Outfalls 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 Outfalls 001 and 002 include Outfalls 011 and 018. The stormwater runoff from Happy Valley (Outfall 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.

Outfalls 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 Work (POTW) facilities.

Outfalls 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 Outfalls 012 and 013 and transport the collected stormwater to the Silvernale Pond for treatment in the Stormwater Treatment System (SWTS) prior to being discharged via Outfall 018, which has numeric effluent limits. Outfall 014 was the former location of the Advanced Propulsion Test Facility (APTF). The facility 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 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 Outfall 011. Outfalls 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 Outfalls 003 through 007 and 010 or it is transferred to Silvernale Pond for treatment prior to discharge at Outfall 018. Outfall 004, which targets stormwater runoff from the Sodium Reactor Experiment (SRE) area, was modified to include the flow exiting the concrete channel that collects water from the support area of the SRE within the same watershed. Stormwater from Outfalls 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, Outfall 009 always discharges to Arroyo Simi.

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 Outfall 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 Outfall 019. Outfall 020 was identified to be downgradient from Outfall 002; however, it was not constructed. Due to the practice of groundwater injection, Outfalls 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 Outfalls 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 the Order R4-2015-0033 for discharges from Discharge Points Outfalls 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 (Note a) from Outfalls 001, 002, 011, and 018.

Parameter	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration (Note a)
Flow	MGD	117.83	6.8
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	mg/L	30	16
Oil and Grease	mg/L	15	12
pH	s.u.	6.5/8.5 (Note b)	8.35 (8.45)
Barium	mg/L	1	0.11 (0.25)
Chloride	mg/L	150	35 (44)
Chlorine, Total Residual	mg/L	0.1	0.07
Detergents (as MBAS)	mg/L	0.5	0.23 (0.47)
Dissolved Oxygen	mg/L	--	23.2
Fluoride	mg/L	1.6	0.25 (0.26)

Parameter	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration (Note a)
Ammonia-N	mg/L	10.1	0.411 (0.838)
Nitrate-N	mg/L	8.0	2.8 (7.1)
Nitrite-N	mg/L	1.0	0.11 (0.15)
Nitrate + Nitrite (as N)	mg/L	8	2.8 (7.2)
Perchlorate	µg/L	6.0	< 4 (Note c)
Sulfate	mg/L	300	240 (340)
Temperature	°F	80	58.19
Total Dissolved Solids (TDS)	mg/L	950	690 (740)
Antimony, TR	µg/L	6.0	0.51 (0.82)
Arsenic, TR	µg/L	10	4.45 (17)
Beryllium, TR	µg/L	4.0	< 2 (Note c) (1.8)
Cadmium, TR	µg/L	3.1	< 1 (Note c) (1.6)
Chromium VI, TR	µg/L	16	0.29
Copper, TR	µg/L	67.5	11 (52)
Lead, TR	µg/L	94	8.6 (88)
Mercury, TR	µg/L	0.10	< 0.2 (Note c)
Nickel, TR	µg/L	94	13 (28)
Silver, TR	µg/L	4.1	< 1 (Note c)
Thallium, TR	µg/L	2.0	< 1 (Note c)
Zinc, TR	µg/L	159	59 (430)
Cyanide	µg/L	8.5	< 5 (Note c) (6.1)
TCDD Equivalentents	µg/L	2.8E-08	2.6E-07
1,1-Dichloroethylene	µg/L	6.0	< 0.5 (Note c)
Trichloroethylene	µg/L	5.0	0.69 (1.2)
Pentachlorophenol	µg/L	16	1.3
2,4,6-Trichlorophenol	µg/L	13	< variable (Note c)
Bis(2-ethylhexyl) phthalate	µg/L	4.0	< variable (Note c)
2,4-Dinitrotoluene	µg/L	18	< variable (Note c)
N-Nitrosodimethylamine	µg/L	16	< variable (Note c)
Alpha BHC	µg/L	0.03	< variable (Note c) (0.0041)
Radioactivity - Gross Alpha	pCi/L	15	14.1 (60.7)
Radioactivity - Gross Beta	pCi/L	50	9.34 (40.7)
Combined Radium-226 & Radium-228	pCi/L	5.0	1.815 (2.276)
Tritium	pCi/L	20,000	< 500 (Note c)

Parameter	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration (Note a)
Strontium-90	pCi/L	8.0	0.461 (1.12)

Footnotes for Table F-2

- a. 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).
- b. Instantaneous minimum and maximum effluent limits.
- c. Non-detected result; 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 Outfalls 003, 004, 005, 006, 007, 009, and 010

Parameter	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration (Note a)
Flow	MGD	64.33	5.92
Oil and Grease	mg/L	15	< variable (Note c) (1.6)
pH	su	6.5/8.5 (Note b)	8.35 (8.41)
Chloride	mg/L	150	14
Fluoride	mg/L	1.6	< 0.5 (Note c) (0.25)
Ammonia-N	mg/L	10.1	(Note c)
Nitrate-N	mg/L	8.0	< 0.11
Nitrite-N	mg/L	1.0	< 0.15 (Note c)
Nitrate + Nitrite (as N)	mg/L	10	3.6
Perchlorate	µg/L	6.0	< 4 (Note c)
Sulfate	mg/L	250	14 (22)
Temperature	°F	80	57.3
Total Dissolved Solids (TDS)	mg/L	950	160
Antimony, TR	µg/L	6.0	1.6 (2.3)
Cadmium, TR	µg/L	4.0	< 1 (Note c)
Copper, TR	µg/L	31	8.8
Lead, TR	µg/L	5.2	9.5
Mercury, TR	µg/L	0.051	< 0.2 (Note c)
Nickel, TR	µg/L	958	8.3 (170)
Selenium, TR	µg/L	5	0.55 (0.57)
Thallium, TR	µg/L	2.0	< 1 (Note c)

Parameter	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration (Note a)
Zinc, TR	µg/L	120	41
Cyanide	µg/L	9.5	< 5 (Note c)
TCDD	µg/L	2.8E-08	8.7E-08
Radioactivity - Gross Alpha	pCi/L	15	17.9
Radioactivity – Gross Beta	pCi/L	50	12.7
Combined Radium-226 & Radium-228	pCi/L	5.0	1.53
Tritium	pCi/L	20,000	623
Strontium-90	pCi/L	8.0	0.675 (0.719)

Footnotes for Table F-3

- a. 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).
- b. Instantaneous minimum and maximum effluent limits.
- c. Non-detected result; 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 Outfall 008

Parameter	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration (Note a)
Flow	MGD	7.21	2.92
Oil and Grease	mg/L	15	1.5
pH	su	6.5/8.5 (Note b)	8.24 (8.41)
Boron	mg/L	1.0	0.087
Chloride	mg/L	150	8.8 (12)
Fluoride	mg/L	1.6	< 0.5 (Note c) (0.3)
Ammonia-N	mg/L	10.1	0.18 (1.37)
Nitrate-N	mg/L	8	3.6 (8.6)
Nitrite-N	mg/L	1	0.05 (0.11)
Nitrate + Nitrite – N	mg/L	8	3.6 (8.6)
Perchlorate	µg/L	6.0	2.9
Sulfate	mg/L	250	8.6 (15)
Temperature	°F	80	78.8
Total Dissolved Solids (TDS)	mg/L	950	190 (240)
Antimony, TR	µg/L	6.0	0.85 (2)
Cadmium, TR	µg/L	3.1	< 1 (Note c) (0.9)
Copper, TR	µg/L	67.5	6.7 (16)

Parameter	Units	Maximum Daily Effluent Limitation	Maximum Effluent Concentration (Note a)
Lead, TR	µg/L	94	4 (54)
Mercury, TR	µg/L	0.1	< 0.2 (Note c) (0.1)
Nickel, TR	µg/L	86	< 10 (Note c) (18)
Thallium, TR	µg/L	2.0	< 1 (Note c)
Zinc, TR	µg/L	159	60 (120)
Cyanide	µg/L	9.5	15
TCDD	µg/L	2.8E-08	1.4E-08 (1.5E-08)
Radioactivity - Gross Alpha	pCi/L	15	1.45 (23.2)
Radioactivity – Gross Beta	pCi/L	50	7.54 (18.9)
Combined Radium-226 & Radium-228	pCi/L	5.0	0.583
Tritium	pCi/L	20,000	< 500 (Note c)
Strontium-90	pCi/L	8.0	0.545 (0.586)

Footnotes for Table F-4

- a. 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).
- b. Instantaneous minimum and maximum effluent limits.
- c. Non-detected result; 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 April 2020) 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 (Note a)	EFF-008	Copper	Daily Maximum	15	14	µg/L

Date	Location	Pollutant	Type of Limitation	Reported Value	Effluent Limitation	Units
12/07/2018 (Note a)	EFF-008	Cyanide	Daily Maximum	15	9.5	µg/L
12/07/2018 (Note a)	EFF-008	Lead	Daily Maximum	54	5.2	µg/L
12/07/2018 (Note a)	EFF-009	TCDD Equivalents	Daily Maximum	3.7E-08	2.8E-08	µg/L
01/07/2019 (Note a)	EFF-008	Copper	Daily Maximum	16	14	µg/L
01/07/2019 (Note a)	EFF-008	Lead	Daily Maximum	38	5.2	µg/L
01/07/2019 (Note a)	EFF-008	Radiation, Gross Alpha	Daily Maximum	19 (Note b)	15	pCi/L
02/01/2019 (Note a)	EFF-008	Lead	Daily Maximum	7.5	5.2	µg/L
02/01/2019 (Note a)	EFF-009	Nickel	Daily Maximum	170	86	µg/L
02/03/2019 (Note a)	EFF-011	Arsenic	Daily Maximum	11	10	µg/L
02/03/2019 (Note a)	EFF-011	Iron	Daily Maximum	9.6	0.3	mg/L
02/03/2019 (Note a)	EFF-011	Lead	Daily Maximum	8.4	5.2	µg/L
02/03/2019 (Note a)	EFF-011	Manganese	Daily Maximum	170	50	µg/L
02/03/2019 (Note a)	EFF-011	TCDD Equivalents	Daily Maximum	1.7E-07	2.8E-08	µg/L
02/08/2019 (Note a)	EFF-008	Nitrate, Total (as N)	Daily Maximum	8.6	8	mg/L
02/08/2019 (Note a)	EFF-008	Nitrite Plus Nitrate (as N)	Daily Maximum	8.6	8	mg/L
02/10/2019 (Note a)	EFF-008	Nitrate, Total (as N)	Daily Maximum	8.6	8	mg/L
02/10/2019 (Note a)	EFF-008	Nitrite Plus Nitrate (as N)	Daily Maximum	8.6	8	mg/L
02/15/2019 (Note a)	EFF-011	Iron	Daily Maximum	4.6	0.3	mg/L
02/15/2019 (Note a)	EFF-011	Manganese	Daily Maximum	86	50	µg/L
02/15/2019 (Note a)	EFF-011	TCDD Equivalents	Daily Maximum	3.9E-08	2.8E-08	µg/L

Date	Location	Pollutant	Type of Limitation	Reported Value	Effluent Limitation	Units
03/06/2019 (Note a)	EFF-018	pH	Instantaneous Minimum	6.41	6.5 - 8.5	SU
03/07/2019 (Note a)	EFF-011	Iron	Daily Maximum	0.84	0.3	mg/L
03/07/2019 (Note a)	EFF-011	TCDD Equivalents	Daily Maximum	3.3E-08	2.8E-08	µg/L

Footnotes for Table F-5

- a. With the exception of violations of the effluent limitations for TCDD equivalents, violations that occurred between 12/2018 and 03/3019, 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.
- b. As noted in Section 4.1 of this Order, the data from the 12 preceding months shall be averaged and compared to the limit. One other sample result was reported on December 7, 2018 at 14.8 pCi/L. The average of these two data points is 19 pCi/L, which exceeds the limit of 15 pCi/L and is recorded in the table.

End of Footnotes for Table F-5

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 Authority 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 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. To date, Boeing has paid \$274,500 in stipulated penalties for effluent limit violations under this penalty structure.

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, following the Woolsey Fire and prior to and during actions to clean up debris and make required repairs to infrastructure at the Facility, were granted approval for relief. TCDD violations 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 does not anticipate any changes to their discharge during the term of this Order. When the Discharger begins remediation and/or demolition activities to comply with its DTSC mandated cleanup, it 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 Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 of the Order subject to the WDRs in this Order.¹

3.2. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from CEQA. See also *County of Los Angeles v. State Water Resources Control Board* (2006) 143 Cal.App.4th 985, 1007.

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* (hereinafter Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve

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 (indeed, much, if not all, of the Site is such an area) 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).

those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan.

A number of the outfalls at the 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	<p><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).</p> <p><u>Potential:</u> Municipal and Domestic Supply (MUN; Note a)</p>
001, 002, 011, 018	Bell Creek	<p><u>Existing:</u> Wildlife Habitat (WILD)</p> <p><u>Intermittent:</u> Ground Water Recharge (GWR), 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>
008	Dayton Canyon Creek	<p><u>Existing:</u> Wildlife Habitat (WILD)</p> <p><u>Intermittent:</u> Ground Water Recharge (GWR), 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-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 are not included at this time.

End of Footnotes for Table F-6

Dayton Canyon Creek, Bell Creek, and all of the reaches of the Los Angeles River listed except for the estuary also have municipal and domestic supply (MUN) listed in the Basin Plan as a potential beneficial use with an asterisk. This is consistent with Los Angeles Water Board Resolution 89-03; however, the Los Angeles Water Board has only conditionally designated the MUN beneficial uses; therefore, at this time effluent limitations are not included.

Stormwater runoff from Outfalls 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 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, which is codified in 40 CFR section 131.38. 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 applicable to all surface waters in California.

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 the 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 the U.S. EPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

- 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. Requirements of this Order implement federal and state antidegradation policies 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. Requirements of this Order implement federal anti-backsliding requirements as described in section 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, including protecting rare, threatened, or endangered species. The Discharger is responsible for meeting all requirements of the applicable federal and state Endangered Species Acts.
- 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 Provisions 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) became effective prior to the effective date of the Trash Provisions. 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, 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), this Order requires the Discharger to develop and implement a Storm Water Pollution Prevention Plan (SWPPP), which 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, 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 did not prescribe specific implementation provisions for individual industrial permittees that discharge stormwater only. Effluent monitoring data for the facility indicates there are some detectable concentrations of mercury and this Order includes an effluent limitation for mercury. Further, this Order requires effluent monitoring requirements for mercury to identify any elevated mercury concentration that may occur in the discharge so that it can be addressed appropriately.

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 because the Los Angeles River Bacteria TMDL became effective prior to March 22, 2019, as described in section 3.5.

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 Outfalls 001, 002, 011, and 018 enter Bell Creek, a tributary to the Los Angeles River. Stormwater from Happy Valley, Outfall 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 Outfalls 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 U.S. EPA approved the California 2014-2016 CWA section 303(d) List of Impaired Waters (2014-16 303(d) List) on April 6, 2018. 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 2014-16 303(d) List and have been scheduled for TMDL development. The Facility discharges into Bell Creek, which ultimately discharges into the Los Angeles River. The 2014/2016 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 applies to discharges from SSFL Outfalls 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 2014-16

303(d) List. The 2014-16 303(d) list identifies the following impairments: ammonia, chlorpyrifos, diazinon, indicator bacteria, pesticides, sediment/siltation, boron, chloride, fecal coliform, 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 Outfalls 003 to 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 (Resolution No. 03-009). 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 (Resolution No. R10-007). 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 (Resolution No. 2007-014). 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. 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, 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 USEPA 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 USEPA, 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 USEPA 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 (Resolution No. R4-2005-0010).** The Los Angeles Water Board adopted the Calleguas Creek TMDL for Organochlorine (OC) Pesticides and Polychlorinated Biphenyls (PCBs) and Siltation on July 7, 2005. 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 (Resolution No. R4-2006-012).** The Los Angeles Water Board adopted the Calleguas Creek Watershed Metals TMDL on June 8, 2006. 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, copper, and nickel are 0.051, 31.0 and 958 µg/L, respectively, expressed as daily maximum values, and are incorporated in this Order for Outfalls 003 to 007, 009, and 010 directly.
- 3.5.7. The following TMDLs developed for Calleguas Creek are not applicable to discharges from the Santa Susana Field Laboratory:
- a. Calleguas Creek Salts TMDL (Resolution No. R4-2007-016)
 - b. Calleguas Creek Nitrogen Compounds and Related Effects TMDL (Resolution No 2002-017)
 - c. Revolon Slough & Beardsley Wash Trash TMDL (Resolution No. 2007-007)

3.6. Title 22 of the California Code of Regulations

The California Department of Public Health established maximum contaminant levels (MCLs) for inorganic, organic and radioactive contaminants in drinking water. The MCLs can be found in Title 22, California Code of Regulations (Title 22). Chapter 3 of the Basin Plan incorporates portions of Title 22 by reference. This incorporation by reference is prospective, including future changes to the incorporated provisions as the changes take effect. Title 22 MCLs have been incorporated into NPDES permits and Non-Chapter 15 WDRs to protect the municipal and domestic supply (MUN) and groundwater recharge (GWR), where applicable and the underlying groundwater has a designated MUN beneficial use.

Groundwater Recharge. 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 primary MCLs will remain in the NPDES permit where there is reasonable potential.

3.7. 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.

3.8. Other Plans, Policies and Regulations

3.8.1. **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 vulnerabilities of stormwater collection and conveyance systems, facilities, treatment systems, and outfalls 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.

- 3.8.2. **Advancing Racial Equity.** In accordance with the Water Boards' efforts to advance racial equity, the Order requires all Permittees to meet water quality standards to protect public health and the environment, thereby benefitting all persons and communities within the Region. 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.

The Order implements all other applicable federal regulations and State plans, policies, and regulations.

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.

The previous permit 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, are based on water

quality objectives contained in the Basin Plan. Effluent limitations for some priority toxic pollutants are based on an analysis of effluent monitoring data and the applicable water quality criteria.

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.

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.

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

- a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.
- b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.
- c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS,

fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

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

The CWA requires U.S. EPA to develop 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 Technology-Based Effluent Limitations**

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. 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). 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. These limitations/benchmarks for Outfalls 001, 002, 011 and 018 are summarized in Table F-7. Pursuant to state and federal anti-backsliding regulations, this Order retains effluent limitations for these pollutants as technology-based effluent limitations. 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/Benchmarks (Note a) at Outfalls 001, 002, 011, and 018

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

Footnotes for Table F-8

- a. A “benchmark” is a water quality-based effluent limit or a performance-based limit that is used to evaluate the performance of best management practices (BMPs) with regard to the removal of pollutants present in the discharge. Benchmarks are applicable at Outfalls 001 and 002. They were established to address concerns included in the State Water Board Order WQ 2006-0008, which provided direction regarding addressing the issue of potential double counting of violations in both upstream and downstream compliance locations along the same drainage. In this Order, the benchmarks are established based on water quality-based effluent limitations. Exceedance of a benchmark triggers an evaluation of the BMPs implemented at the site. The evaluation may determine that the BMPs require augmentation, upgrading, or replacement. If so, the Discharger must develop a plan to implement the required upgrades and report to the Los Angeles Water Board within 60 days of the reported exceedance. The Discharger must continue monitoring as directed in the Monitoring and Reporting Program during plan development and implementation.
- b. TBEL for this parameter is included in this Order pursuant to BPT requirements (40 C.F.R. section 125.3(d)(1); 40 C.F.R. section 125.3(c)(2)).

End of Footnotes for Table F-8

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

Parameter	Units	Maximum Daily Effluent Limitations
Oil and Grease (Note a)	mg/L	15

Footnotes for Table F-9

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

End of Footnotes for Table F-9

Pursuant to CWA section 402(p) and 40 C.F.R section 122.44(k), this Order requires the Discharger to develop, implement, and annually submit a Storm Water Pollution Prevention Plan (SWPPP), in accordance with Attachment G, to outline site-specific management processes for minimizing stormwater runoff contamination and for preventing contaminated stormwater runoff and trash from being discharged directly into storm drains or receiving waters. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with stormwater runoff and to prevent the entrainment of trash in stormwater. These procedures shall also ensure that at no time will process wastewaters be commingled with stormwater and unauthorized non-stormwater discharges do not occur from the Facility. The SWPPP shall include a

summary of BMPs aimed at controlling the potential exposure of pollutants to stormwater, inspection practices, schedules of preventive maintenance, housekeeping procedures, vehicle management practices, and spill containment and cleanup procedures; it should demonstrate the Discharger's continued effective implementation of the SWPPP.

The technology-based requirements in this Order are based on case-by-case numeric limitations developed using BPJ in accordance with 40 C.F.R. section 125.3. Technology-based effluent limitations are established in this Order for oil and grease and biochemical oxygen demand (BOD) for Outfalls 001, 002, 011, and 018, and oil and grease for Outfalls 003 through 010. The limitations for these pollutants are consistent with technology-based effluent limitations (TBEL) included in the previous Order and other orders within the State for similar types of 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. The Los Angeles Water Board considered other relevant factors pursuant to 40 C.F.R. section 125.3 and concluded that the limitations are appropriate.

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).

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

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 outfalls regulated by this Order.

- 4.3.2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives.** The Los Angeles Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses of the Arroyo Simi, Bell Creek and Dayton Canyon Creek affected by the discharge have been previously described in 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. **Biochemical Oxygen Demand (BOD₅).** The 5-day BOD test indirectly measures the amount of readily degradable organic material in water by measuring the residual dissolved oxygen after a period of incubation (usually 5 days at 20° C). This Order addresses BOD through technology-based effluent limitations.
 - c. **Oil and Grease** The limits for oil and grease are based on the Basin Plan (page 3-34) narrative, “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 water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.” This narrative objective has been translated into a numeric effluent limitation, based on U.S EPA’s Quality Criteria for Water (commonly known as the “Gold Book”). This Order includes the maximum daily limitation for oil and grease (15 mg/L) as a TBEL, which is

equivalent to the numeric water quality effluent limitation that would apply for oil and grease.

- d. **Turbidity.** The Basin Plan requirements for turbidity are as follows:
- i. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%.
 - ii. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

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

- e. **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.”

- f. **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.
- g. **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 Outfalls 011, 018, 001, and 002 is based on the Los Angeles River Nutrients TMDL. The effluent limitation of 10 mg/L for Outfalls 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. As discussed in section 3.5.7 of this Fact Sheet, the Calleguas Creek Nitrogen Compounds and Related Effects TMDL did not establish WLAs for nitrogen compounds for minor NPDES discharges to the Calleguas Creek Watershed. Therefore, this permit includes effluent limitations of 10 mg/L for nitrate plus nitrite as nitrogen consistent with the Basin Plan.
- h. **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 (NH₃) and the ammonium ion (NH₄⁺). They are both toxic, but the neutral, un-ionized ammonia species (NH₃) 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.

- i. **Bacteria.** This Order implements the applicable numeric water quality objectives for bacteria included in the Los Angeles River Bacteria TMDL and the Bacteria Provisions. 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.

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, and those that were limited in the previous Order. 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)
1	Antimony	6 (Note a)	--	--	4,300	6
2	Arsenic	10 (Note b)	340	150	--	10
3	Beryllium	4 (Note a)	--	--	--	4
4	Cadmium	2.5	4.5	2.5	--	5
5a	Chromium (III)	207	1737	207	--	--
5b	Chromium (VI)	11.4	16	11.4	--	50
6	Copper	9.3	14	9.3	--	--
7	Lead	3.2	82	3.2	--	15
8	Mercury	0.051	--	--	0.051	2
9	Nickel	52	469	52	4,600	100
10	Selenium	5.0		5	--	50
11	Silver	4.1	4.1	--	--	--
12	Thallium	2	--	--	6.3	2
13	Zinc	120	120	120	--	--
14	Cyanide	5.2	22	5.2	220,000	150
	TCDD Equivalents	1.4E-08	--	--	1.4E-08	3.0E-05
30	1,1-Dichloroethylene	3.2	--	--	3.2	6
43	Trichloroethylene	5 (Note a)	--	--	81	5
53	Pentachlorophenol	8.2	19	15	8.2	1
55	2,4,6-Trichlorophenol	6.5	--	--	6.5	--
68	Bis(2-ethylhexyl)phthalate	5.9	--	--	5.9	4
82	2,4-Dinitrotoluene	9.1	--	--	9.1	--
96	N-Nitrosodimethylamine	8.1	--	--	8.1	--
103	Alpha-BHC	0.013	--	--	0.013	--
	Perchlorate	6 (Note c)	--	--	--	6
	Radioactivity Gross Alpha (pCi/L)	15 (Note a)	--	--	--	15 (pCi/L)
	Radioactivity Gross Beta (pCi/L)	50 (Note a)	--	--	--	50 (pCi/L)
	Combined Radium-226 & Radium-228 (pCi/L)	5 (Note a)	--	--	--	5 (pCi/L)
	Tritium (pCi/L)	20,000 (Note a)	--	--	--	20,000 (pCi/L)
	Strontium-90 (pCi/L)	8 (Note a)	--	--	--	8 (pCi/L)

Footnotes for Table F-10

a. Basin Plan-Title 22 MCLs.

- b. USEPA MCL
- c. 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:

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

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
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.** 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 a state 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 April 2020. 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. Upon additional evaluation, new effluent limitations are not required for these constituents that triggered reasonable potential based on "post-fire" data. Additional justification to remove these "post-

fire” constituents is discussed in section 4.4. Following are summary tables of the RPA completed for each group of outfalls evaluated.

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

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B) (Note a)	RPA Result - Need Limit?	Reason
1	Antimony	6.0	0.82 (Note b)	--	Yes	MEC<C & no B Limit based on Previous Permit
2	Arsenic	10.0	17	--	Yes	MEC>=C
3	Beryllium	4.0	1.80 (Note b)	--	Yes	MEC<C & no B Limit based on Previous Permit
4	Cadmium	3.1	1.60	--	Yes	TMDL
5	Chromium (VI)	11.4	0.29 (Note b)	--	Yes	MEC<C & No B Limit based on Previous Permit
6	Copper	9.3	52	--	Yes	TMDL
7	Lead	94	88	--	Yes	TMDL
8	Mercury	0.051	< 0.2 (Note c)	--	Yes	MDL>C & No B Limit based on Previous Permit
9	Nickel	52.2	28	--	No	MEC<C & no B
11	Silver	4.1	< 1 (Note c)	--	Yes	MEC<C & no B Limit based on Previous Permit
12	Thallium	2.0	< 1 (Note c)	--	Yes	MEC<C & no B

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B) (Note a)	RPA Result - Need Limit?	Reason
						Limit based on Previous Permit
13	Zinc	120	430	--	Yes	TMDL
14	Cyanide	5.2	6.10 (Note b)	--	Yes	MEC>=C
16	TCDD (TEQ)	2.8E-08	2.6E-07	--	Yes	MEC>=C
29	1,2-Dichloroethane	0.5	< 0.5 (Note c)	--	Yes	MEC<C & no B Limit based on Previous Permit
30	1,1-Dichloroethylene	3.2	< 0.5 (Note c)	--	Yes	MEC<C & no B Limit based on Previous Permit
43	Trichloroethylene	5.0	1.2	--	Yes	MEC<C & no B Limit based on Previous Permit
53	Pentachlorophenol	16.5	1.3 (Note b)	--	Yes	MEC<C & no B Limit based on Previous Permit
55	2,4,6-Trichlorophenol	6.5	< various (Note c)	--	Yes	MEC<C & no B Limit based on Previous Permit
59	Benzidine	0.00054	5.49		Note d	MEC>=C (1/15/19 @ Outfall 018)
68	Bis(2-Ethylhexyl)Phthalate	4.0	< various (Note c)	--	Yes	MEC<C & no B

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B) (Note a)	RPA Result - Need Limit?	Reason
						Limit based on Previous Permit
78	3,3'-Dichlorobenzidine	0.077	1.10	--	Note d	MEC>=C (1/15/19 @ Outfall 018)
82	2,4-Dinitrotoluene	9.1	< various (Note c)	--	Yes	MEC<C & no B Limit based on Previous Permit
96	N-Nitrosodimethylamine	8.1	< various (Note c)	--	Yes	MEC<C & no B Limit based on Previous Permit
103	alpha-BHC	0.013	0.0041 (Note b)	--	Yes	MEC<C & no B Limit based on Previous Permit
109	4,4-DDE	0.00059	0.0035 (Note b)	--	Note d	MEC>=C (1/7/19 @ Outfall 002)
	Perchlorate	6.0	< 4 (Note c)	--	Yes	Limit based on Previous Permit
	Radioactivity – Gross Alpha (pCi/L)	15	60.7	--	Yes	MEC>C
	Radioactivity – Gross Beta (pCi/L)	50	40.7	--	Yes	Limit based on Previous Permit
	Combined Radium 226 & Radium 228 (pCi/L)	5	2.276	--	Yes	Limit based on Previous Permit
	Tritium (pCi/L)	20,000	< 500 (Note c)	--	Yes	Limit based on Previous Permit

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B) (Note a)	RPA Result - Need Limit?	Reason
	Strontium-90 (pCi/L)	8	1.12	--	Yes	Limit based on Previous Permit

Footnotes for Table F-12

- a. "--" indicates no data available.
- b. Results reported as DNQ.
- c. No detected result; data reported at less than the laboratory reporting limit (e.g., < RL)
- d. Reasonable potential triggered by "post-fire" data including the Outfall location and date.

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)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
1	Antimony	6.0	2.3	0.95 (Note a)	Yes	MEC<C & B<=C, Limit based on Previous Permit
4	Cadmium	2.5	< 1 (Note b)	1.60	Yes	CTR, Limit based on Previous Permit
6	Copper	31	8.8	52	Yes	B>C & pollutant detected in effluent, Limit based on TMDL
7	Lead	3.2	9.5	88	Yes	MEC>=C & B>C
8	Mercury	0.051	< 0.2 (Note b)	< 0.2 (Note b)	No	effluent ND, MDL>C, and B is ND

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
						Limit is based on TMDL
9	Nickel	958	170	28	Yes	MEC<C, Limit is based on TMDL
10	Selenium	5	0.57 (Note a)	11	Note c	B>C & pollutant detected in effluent (12/7/18 @ Outfall 002)
12	Thallium	2.0	< 1 (Note b)	< 1 (Note b)	Yes	MEC<C & B is ND Limit based on Previous Permit
13	Zinc	120	41	430	Yes	B>C & pollutant detected in effluent
14	Cyanide	5.2	< 5 (Note b)	6.1 (Note a)	Yes	B>C & effluent ND Limit based on Previous Permit
15	Asbestos (million fibers/L)	7	75	< 5 (Note b)	Note c	MEC>=C (1/14/19 @ Outfall 009)
16	2,3,7,8 TCDD	1.4E-08	8.7E-08	2.6E-07	Yes	MEC>=C
53	Pentachlorophenol	1.0	1.08 (Note a)	1.3 (Note a)	Note c	MEC>=C (2/15/19 @ Outfall 006)
68	Bis(2-Ethylhexyl)Phthalate	4.0	10.6	< various (Note b)	Yes	MEC>=C
	Perchlorate	6.0	< 4 (Note b)	--	Yes	Limit based on Previous Permit

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
	Radioactivity – Gross Alpha (pCi/L)	15	17.9	60.7	Yes	Limit based on Previous Permit; MEC>C
	Radioactivity – Gross Beta (pCi/L)	50	12.7	40.7	Yes	Limit based on Previous Permit
	Combined Radium 226 & Radium 228 (pCi/L)	5	1.53	2.276	Yes	Limit based on Previous Permit
	Tritium (pCi/L)	20,000	623	< 500 (Note b)	Yes	Limit based on Previous Permit
	Strontium-90 (pCi/L)	8	0.719	1.12	Yes	Limit based on Previous Permit

Footnotes for Table F-13

- a. Results reported as DNQ.
- b. No detected result; data reported at less than the laboratory reporting limit (e.g., < RL)
- c. Reasonable potential triggered by “post-fire” data including the Outfall location and date.

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)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
1	Antimony	6.0	2	0.82 (Note a)	No	MEC<C & B<=C
2	Arsenic	10.0	15.0	17.0	Note b	MEC>=C (12/7/18 & 1/7/19)
4	Cadmium	3.1	0.9 (Note a)	1.6	Yes	TMDL
6	Copper	9.3	16	52	Yes	MEC>=C, Limit based on TMDL
7	Lead	94	54	88	Yes	TMDL

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
9	Nickel	52.2	18	28	No	MEC<C & B<=C
12	Thallium	2.0	< 1 (Note c)	0.2	No	MEC<C & B is ND
13	Zinc	120	120	430	Yes	MEC>=C, Limit based on TMDL
14	Cyanide	5.2	15	6.1 (Note a)	Yes	MEC>=C
16	TCDD Equivalents	2.8E-08	2.4E-10	2.6E-07	Yes	B>C & pollutant detected in effluent
59	Benzidine	0.00054	5.46	5.49	Note b	MEC>=C (1/7/19 & 2/1/19)
78	3,3'-Dichlorobenzidine	0.077	1.09	1.10	Note b	MEC>=C (1/7/19 & 2/1/19)
109	4,4-DDE	0.00059	0.0033 (Note a)	0.0035 (Note a)	Note b	MEC>=C (1/7/19)
	Perchlorate	6.0	2.9 (Note a)	< 4 (Note c)	Yes	Limit based on Previous Permit
	Radioactivity – Gross Alpha (pCi/L)	15	23.2	60.7	Yes	Limit based on Previous Permit; MEC>C
	Radioactivity – Gross Beta (pCi/L)	50	18.9	40.7	Yes	Limit based on Previous Permit
	Combined Radium 226 & Radium 228 (pCi/L)	5	0.583	2.276	Yes	Limit based on Previous Permit
	Tritium (pCi/L)	20,000	< 500 (Note c)	< 500 (Note c)	No	MEC<C & B is ND
	Strontium-90 (pCi/L)	8	0.586	1.12	No	MEC<C

Footnotes for Table F-14

- a. Results reported as DNQ.

- b. Reasonable potential triggered by “post-fire” data including the date.
- c. 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

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.

In this Order, no dilution credit is being 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.

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,

$$ECA = C$$

For cyanide, the applicable ECAs are:

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

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

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

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

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

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

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

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

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:

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

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 µg/L	8.5 µg/L	220,000 µg/L	441,362 µg/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. Chronic toxicity is a more stringent requirement than acute toxicity. 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.

The previous 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 (emphasis added) and policy at the time of permit issuance or renewal.”

In June 2010, U.S. EPA published a guidance document titled *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend the following: “Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program.” The TST statistical approach is another statistical option

for analyzing valid WET test data. Use of the TST statistical approach does not result in any changes to EPA's WET test methods. Section 9.4.1.2 of U.S. EPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/0136,1995), recognizes that, "the statistical methods recommended in this manual are not the only possible methods of statistical analysis." The TST statistical approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods.

The TST's null hypothesis for chronic toxicity is:

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

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 April 2020 indicated two "Fail" results in 2017 (Outfall 002) and 2019 (Outfall 009) for chronic toxicity. Therefore, this Order includes chronic toxicity effluent limitations at discharge locations except for Outfall 008. 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:

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

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

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

Flow rate = discharge flow rate (MGD)

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 benchmarks and WQBELs in this Order is provided below for each outfall group.

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

Conventional Pollutants	Units	Maximum Daily Benchmarks/Effluent Limitations
pH	standard units	6.5/8.5 (Note a)

Non-Conventional Pollutants	Units	Maximum Daily Benchmarks/Effluent Limitations
Barium	mg/L	1.0
Chloride	mg/L	150
Chlorine, Total Residual	mg/L	0.1
Chronic Toxicity (Note b)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%
Fluoride	mg/L	1.6
Detergents (as MBAS)	mg/L	0.5
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 (Note c)
Total Dissolved Solids	mg/L	950
Radioactivity – Gross Alpha	pCi/L	15
Radioactivity – Gross Beta	pCi/L	50
Combined Radium-226 & Radium-228	pCi/L	5.0
Tritium	pCi/L	20,000
Strontium-90	pCi/L	8.0

Priority Pollutants	Units	Maximum Daily Benchmarks/Effluent Limitations
Antimony, TR	µg/L	6.0

Priority Pollutants	Units	Maximum Daily Benchmarks/Effluent Limitations
Arsenic, TR	µg/L	10.0
Beryllium, TR	µg/L	4.0
Cadmium, TR	µg/L	3.1 (Note d)
Chromium (VI), TR	µg/L	16
Copper, TR	µg/L	67.5 (Note d)
Lead, TR	µg/L	94 (Note d)
Mercury, TR	µg/L	0.1
Silver, TR	µg/L	4.1
Thallium, TR	µg/L	2.0
Zinc, TR	µg/L	159 (Note d)
Cyanide	µg/L	8.5
TCDD (TEQ)	µg/L	2.8E-08
1,2-Dichloroethane	µg/L	0.5
1,1-Dichloroethylene	µg/L	6.0
Trichloroethylene	µg/L	5
Pentachlorophenol	µg/L	16.5
2,4,6-Trichlorophenol	µg/L	13
Bis(2-ethylhexyl)Phthalate	µg/L	4
2,4-Dinitrotoluene	µg/L	18
N-Nitrosodimethylamine	µg/L	16
alpha-BHC	µg/L	0.03

Footnotes for Table F-15

- a. Instantaneous minimum and maximum benchmarks/effluent limits.
- b. Report “Pass” or “Fail” and “% Effect” for Maximum Daily Effluent Limitation (MDEL)/Benchmark.
- c. Instantaneous maximum effluent limit/benchmark.
- d. The effluent limitations/benchmarks 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

Conventional Pollutants	Units	Maximum Daily Effluent Limitations
pH	standard units	6.5/8.5 (Note a)

Non-Conventional Pollutants	Units	Maximum Daily Effluent Limitations
Chronic Toxicity (Note b)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%
Perchlorate	µg/L	6.0
Temperature	degrees °F	80 (Note c)
Total Dissolved Solids	mg/L	850
Radioactivity – Gross Alpha	pCi/L	15
Radioactivity – Gross Beta	pCi/L	50
Combined Radium-226 & Radium-228	pCi/L	5.0
Tritium	pCi/L	20,000
Strontium-90	pCi/L	8.0

Priority Pollutants	Units	Maximum Daily Effluent Limitations
Antimony, TR	µg/L	6.0
Cadmium, TR	µg/L	4.0
Copper, TR	µg/L	31 (Note d)
Lead, TR	µg/L	5.2
Mercury, TR	µg/L	0.051 (Note d)
Nickel, TR	µg/L	958 (Note d)
Thallium, TR	µg/L	2
Zinc, TR	µg/L	120
Cyanide	µg/L	9.5
TCDD (TEQ)	µg/L	2.8E-08

Footnotes for Table F-16

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

End of Footnotes for Table F-16

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

Conventional Pollutants	Units	Maximum Daily Effluent Limitations
pH	standard units	6.5/8.5 (Note a)

Non-Conventional Pollutants	Units	Maximum Daily Effluent Limitations
Boron	mg/L	1.0
Chloride	mg/L	150
Chronic Toxicity (Note b)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%
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 (Note c)
Total Dissolved Solids	mg/L	950
Radioactivity – Gross Alpha	pCi/L	15
Radioactivity – Gross Beta	pCi/L	50
Combined Radium-226 & Radium-228	pCi/L	5.0

Priority Pollutants	Units	Maximum Daily Effluent Limitations
Cadmium, TR	µg/L	3.1 (Note d)
Copper, TR	µg/L	67.5 (Note d)
Lead, TR	µg/L	94 (Note d)
Zinc, TR	µg/L	159 (Note d)
Cyanide	µg/L	9.5
TCDD (TEQ)	µg/L	2.8E-08
Benzidine	µg/L	0.0011

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 C.F.R. section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding

provisions require effluent limitations in a reissued permit to be as stringent as those in the previous 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; and a change in the manner of incorporation of the Los Angeles River Metals and Calleguas Creek Metals TMDLs (together, Metals TMDLs).

As described in the Order, a benchmark is considered a performance-based metric of the listed pollutant. Pollutant concentration levels are analyzed to evaluate if BMPs implemented at the site are effective or if additional measures are necessary to control the pollutants. An exceedance of a benchmark limit, (i.e. limits applicable to Outfalls 001 and 002) triggers an evaluation or re-evaluation of BMPs to control or reduce pollutants in the discharge from those Outfalls. The evaluation or re-evaluation of BMPs when benchmarks are exceeded is a separate process from, and different than, the exceedance of an effluent limitation that results in a violation of the Order.

In this Order, both benchmarks and effluent limitations for certain pollutants have changed. However, only effluent limitations are subject to the CWA prohibition on backsliding; benchmarks are not.² As such, the benchmark limits expressed in the Order for Outfalls 001 and 002, and in practice coupled with the effluent limits for Outfalls 011 and 018, respectively, do not require anti-backsliding analysis.

The following are the effluent limits that were changed and subject to anti-backsliding requirements:

Constituent	Outfall 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	008, 011, and 018	µg/L	4 (dry weather)	Remove dry-weather limit only	Dry-weather discharge prohibited

² CWA section 1342(o)(1) provides, in relevant part, that “[i]n the case of *effluent limitations*..., a permit may not be renewed, reissued or modified to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit...” 40 C.F.R. § 122.44(l)(1) is not to the contrary. See, discussion in *Matter of City and County of San Francisco* (1993) 4 E.A.D. 559, at p. 580 fn. 49 (in permits where limitations are based on State treatment or water quality standards, statutory anti-backsliding provision found at CWA § 402(o) take precedence over regulations set forth in 40 C.F.R. § 122.44(l)(1)); see, also, Ryan, *The Clean Water Handbook* (4th ed. 2018) NPDES Permit Application and Issuance Procedures, p. 92 [“EPA’s regulations prohibiting backsliding have not yet been modified to incorporate this prohibition against backsliding from water-quality based permit limits.”].) Benchmarks are not effluent limitations, but rather are designed to trigger evaluation or re-evaluation of BMPs. Therefore, they are not subject to the prohibition on backsliding.

Constituent	Outfall Location	Units	Current Daily Maximum	Proposed Daily Maximum	Reason for Change (Basis for Limit)
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	Basin Plan
Lead, TR	008, 011, and 018	µg/L	5.2	94	TMDL
Manganese	011 and 018	µg/L	50	Remove limit	Basin Plan
Mercury	008	µg/L	0.13	Remove limit	RPA
Nickel, TR	003 to 007, 009 010	µg/L	86	958	TMDL
Nickel, TR	008, 011, and 018	µg/L	86	Remove limit	RPA
Selenium, TR	008, 011, and 018	µg/L	8.2/5	Remove limits	Dry-weather discharge prohibited
Total Suspended Solids (TSS)	011 and 018	mg/L	45	Remove limit	Dry-weather discharge prohibited
Settleable Solids	011 and 018	ml/L	0.3	Remove limit	Dry-weather discharge prohibited
Thallium, TR	008	µg/L	2.0	Remove limit	RPA
Zinc, TR	008, 011, and 018	µg/L	120	159	TMDL

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 appearing in the Order.

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. This section is inapplicable here since none of effluent limits being changed in this Order are TBELs based on BPJ. Additionally, because 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. 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 numeric WQBELs in the Order either do not constitute backsliding or satisfy one or more of the foregoing exceptions to anti-backsliding as described below.

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

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

The limits for copper, lead and zinc at Outfalls 008, 011, and 018 and for copper and nickel at Outfalls 003 to 007, 009, 010 are subject to revision – and qualify for an exemption 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, lead, zinc, and nickel. The new MDELs for copper, lead, zinc, and nickel are less stringent than those included in Order R4-2015-0033. However, they are consistent with the assumptions and requirements of the WLAs in 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, lead, zinc, and nickel and they comply with the exceptions to CWA section 303(d)(4)(A).

Removal of TSS and Settleable Solids Limitations at Outfalls 011 and 018; and, Removal of Selenium Limitations and Dry-weather Cadmium Limitation at Outfall 008, 011, and 018 Based on 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 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. (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 triggered by the presence of the TMDL. Now that there are no longer dry-weather discharges, the TMDL is no longer applicable to the Facility, so there is no more trigger for the dry- or wet-weather limitations, and both the dry- and wet-weather selenium limitations are removed. (CWA § 402(o)(2)(A), (B)(i).)

Since the modification of the GETS operation occurred after the issuance of the prior Permit in 2015, the dry-weather limit for cadmium and the dry- and wet-weather limits for 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.”

Antimony, Mercury, Nickel, and Thallium at Outfall 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, mercury, nickel, and thallium at Outfall 008 (discharge 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.

The reasonable potential analysis using the updated monitoring data justifies removal of the effluent limitation for antimony, mercury, nickel, 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. Dayton Canyon Creek is not impaired for antimony, mercury, nickel, and thallium. 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.

Nickel at Outfalls 011 and 018: Effluent Limitation 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 limitation for nickel at Outfalls 011 and 018 (discharge to Bell Creek) that were included in R4-2015-0033 are not retained in this Order because the discharge did not show

reasonable potential to cause or contribute to an exceedance of the applicable water quality criteria for this pollutant, based on the recent monitoring data.

The reasonable potential analysis using the updated monitoring data justifies removal of the effluent limitation for nickel based on the exception above. The removal of the effluent limitation for this pollutant is thus consistent with the anti-backsliding requirements of the CWA and federal regulations. Bell Creek is not impaired for nickel. As described below, relaxation or removal of the effluent limit for this pollutant is consistent with the state and federal antidegradation policies. Nonetheless, this Order retains effluent monitoring for this pollutant, in accordance with the SIP.

Iron and Manganese at Outfalls 011 and 018

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 and manganese at Outfalls 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 and manganese are likely due to site specific natural background concentrations. In other words, the iron and manganese 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 and manganese 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. Nonetheless, this Order retains effluent monitoring for these parameters.

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.³ 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.⁴ 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."⁵

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

³ 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.)

⁴ 40 CFR § 131.12(a)(2).

⁵ 40 CFR § 131.3(n)

further that the discharge is subject to “waste discharge requirements which will result in the best practicable treatment or control of the discharge.”⁶ 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.⁷ The following analysis assumes, without deciding, that the baseline for antidegradation analysis is 1968.⁸

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

⁶ 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.)

⁷ 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.

⁸ 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.

Copper, Lead and Zinc at Outfalls 008, 011, and 018 and Copper and Nickel at Outfalls 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, lead, and zinc at Outfalls 011, 018 and 008 will not result in degradation to receiving waters. The new MDELs for copper and nickel at Outfalls 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 Outfalls 011 and 018 and Selenium and Dry-Weather Cadmium at Outfalls 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 Outfalls and will not degrade surface water.⁹

Antimony, Mercury, Nickel, and Thallium at Outfall 008

Effluent limitations at Outfall 008 for antimony, mercury, nickel, and thallium 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 for these pollutants. Dayton Canyon Creek, to which this outfall discharges, is not on the 303(d) list for Antimony, Mercury, Nickel, 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.

Nickel at Outfalls 011 and 018

Effluent limitation at Outfalls 011 and 018 for nickel is 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 for these pollutants. Bell Creek, to which these outfalls discharge, is not on the 303(d) list for Nickel, so it is possible that this is a high-quality water for

⁹ Discharges to groundwater through the GETS are covered under a different permit, Order No. R4-2014-0187.

these constituents. However, since there is no reasonable potential for this pollutant to exceed water quality standards, no degradation will occur and no alternatives analysis is necessary. There is monitoring for this constituent to ensure that the water quality objective continues to be attained and beneficial uses protected.

Iron and Manganese at Outfalls 011 and 018

Iron and manganese secondary MCLs protect the municipal and domestic supply (MUN) beneficial use and the groundwater recharge (GWR) beneficial use, where the underlying groundwater is designated as MUN, 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 and manganese 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 or manganese, 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 these parameters, 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 Benchmark Limitations for Discharge Points 001 and 002, and Final Effluent Limitations at Discharge Points 011 and 018

Conventional Pollutants	Units (Note a)	Maximum Daily Benchmark/ Effluent Limitation	Basis for Limitation (Note b)
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
Oil and Grease	mg/L	15	E, BP, BPJ
Oil and Grease	lbs/day	14,741	E, BP, BPJ
pH	standard units	6.5/8.5 (Note c)	E, BP

Non-Conventional Pollutants	Units (Note a)	Maximum Daily Benchmark/ Effluent Limitation	Basis for Limitation (Note b)
Barium	mg/L	1.0	E, BP
Barium	lbs/day	983	E, BP
Chloride	mg/L	150	E, BP
Chloride	lbs/day	147,405	E, BP
Chlorine, Total Residual	mg/L	0.1	E, BP
Chlorine, Total Residual	lbs/day	98.3	E, BP
Chronic Toxicity (Note d)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%	TST
Fluoride	mg/L	1.6	E, BP
Fluoride	lbs/day	1,572	E, BP
Detergents (as MBAS)	mg/L	0.5	E, BP
Detergents (as MBAS)	lbs/day	491.4	E, BP
Ammonia – N	mg/L	10.1	E, TMDL

Non-Conventional Pollutants	Units (Note a)	Maximum Daily Benchmark/ Effluent Limitation	Basis for Limitation (Note b)
Ammonia – N	lbs/day	9,925	E, TMDL
Nitrate – N	mg/L	8	E, TMDL
Nitrate – N	lbs/day	7,862	E, TMDL
Nitrite – N	mg/L	1	E, TMDL
Nitrite – N	lbs/day	983	E, TMDL
Nitrate + Nitrite - N	mg/L	8	E, BP, TMDL
Nitrate + Nitrite - N	lbs/day	7,862	E, BP, TMDL
Perchlorate	mg/L	6.0	E, BP
Perchlorate	lbs/day	5.9	E, BP
Sulfate	mg/L	300	E, BP
Sulfate	lbs/day	294,810	E, BP
Temperature	°F	80 (Note e)	E, BP
Total Dissolved Solids	lbs/day	950	E, BP
Total Dissolved Solids	mg/L	933,565	E, BP
Radioactivity – Gross Alpha	pCi/L	15	E, BP
Radioactivity – Gross Beta	pCi/L	50	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

Priority Pollutants	Units (Note a)	Maximum Daily Benchmark/ Effluent Limitation	Basis for Limitation (Note b)
Antimony, TR	µg/L	6.0	E, MCL
Antimony, TR	lbs/day	5.9	E, MCL
Arsenic, TR	µg/L	10.0	E, MCL
Arsenic, TR	lbs/day	9.83	E, MCL
Beryllium, TR	µg/L	4.0	E, BP, MCL
Beryllium, TR	lbs/day	3.93	E, BP, MCL
Cadmium, TR	µg/L	3.1	E, CTR, TMDL
Cadmium, TR	lbs/day	3.05	E, CTR, TMDL
Chromium (VI), TR	µg/L	16	E, CTR
Chromium (VI), TR	lbs/day	15.7	E, CTR
Copper, TR	µg/L	67.5	E, CTR, TMDL
Copper, TR	lbs/day	66.3	E, CTR, TMDL

Priority Pollutants	Units (Note a)	Maximum Daily Benchmark/ Effluent Limitation	Basis for Limitation (Note b)
Lead, TR	µg/L	94	E, CTR, TMDL
Lead, TR	lbs/day	92.4	E, CTR, TMDL
Mercury, TR	µg/L	0.1	E, CTR
Mercury, TR	lbs/day	0.1	E, CTR
Silver, TR	µg/L	4.1	E, CTR
Silver, TR	lbs/day	4.03	E, CTR
Thallium, TR	µg/L	2.0	E, CTR, MCL
Thallium, TR	lbs/day	1.97	E, CTR, MCL
Zinc, TR	µg/L	159	E, CTR, TMDL
Zinc, TR	lbs/day	156.25	E, CTR, TMDL
Cyanide	µg/L	8.5	E, CTR
Cyanide	lbs/day	8.4	E, CTR
2,3,7,8-TCDD (TEQ)	µg/L	2.8E-08	E, CTR
2,3,7,8-TCDD (TEQ)	lbs/day	2.75E-08	E, CTR
1,2-Dichloroethane	µg/L	0.5	E, CTR
1,2-Dichloroethane	lbs/day	0.49	E, CTR
1,1-Dichloroethylene	µg/L	6.0	E, CTR, MCL
1,1-Dichloroethylene	lbs/day	5.9	E, CTR, MCL
Trichloroethylene	µg/L	5.0	E, CTR, MCL
Trichloroethylene	lbs/day	4.91	E, CTR, MCL
Pentachlorophenol	µg/L	16.5	E, CTR
Pentachlorophenol	lbs/day	15.7	E, CTR
Bis(2-ethylhexyl)Phthalate	µg/L	4	E, CTR
Bis(2-ethylhexyl)Phthalate	lbs/day	3.93	E, CTR
2,4,6-Trichlorophenol	µg/L	13	E, CTR
2,4,6-Trichlorophenol	lbs/day	12.8	E, CTR
2,4-Dinitrotoluene	µg/L	18	E
2,4-Dinitrotoluene	lbs/day	17.7	E
N-Nitrosodimethylamine	µg/L	16	E
N-Nitrosodimethylamine	lbs/day	15.72	E
alpha-BHC	µg/L	0.03	E
alpha-BHC	lbs/day	0.03	E

Footnotes for Table F-18

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

Non-Conventional Pollutants	Units (Note a)	Maximum Daily Effluent Limitation	Basis for Limitation (Note b)
Total Dissolved Solids	mg/L	456,034	E, BP
Radioactivity – Gross Alpha	pCi/L	15	E, BP
Radioactivity – Gross Beta	pCi/L	50	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

Priority Pollutants	Units (Note a)	Maximum Daily Effluent Limitation	Basis for Limitation (Note b)
Antimony, TR	µg/L	6.0	E, MCL
Antimony, TR	lbs/day	3.2	E, MCL
Cadmium, TR	µg/L	4.0	E, CTR
Cadmium, TR	lbs/day	2.1	E, CTR
Copper, TR	µg/L	31	E, CTR, TMDL
Copper, TR	lbs/day	16.6	E, CTR, TMDL
Lead, TR	µg/L	5.2	BP
Lead, TR	lbs/day	2.8	BP
Mercury, TR	µg/L	0.051	E, CTR, TMDL
Mercury, TR	lbs/day	0.027	E, CTR, TMDL
Nickel, TR	µg/L	958	E, CTR
Nickel, TR	lbs/day	514.0	E, CTR
Thallium, TR	µg/L	2.0	E, CTR, MCL
Thallium, TR	lbs/day	1.1	E, CTR, MCL
Zinc, TR	µg/L	120	E, CTR
Zinc, TR	lbs/day	64.4	E, CTR
Cyanide	µg/L	9.5	E, CTR
Cyanide	lbs/day	5.1	E, CTR
TCDD Equivalentents (Note f)	µg/L	2.8E-08	E, CTR
TCDD Equivalentents (Note f)	lbs/day	1.5E-08	E, CTR

Footnotes for Table F-19

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

$$\text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)} = \text{lbs/day.}$$

b. 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

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

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

End of Footnotes for Table F-19

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

Conventional Pollutants	Units (Note a)	Maximum Daily Effluent Limitation	Basis for Limitation (Note b)
Oil and Grease	mg/L	15	E, BPJ
Oil and Grease	lbs/day	902	E, BPJ
pH	standard units	6.5/8.5 (Note c)	E, BP

Non-Conventional Pollutants	Units (Note a)	Maximum Daily Effluent Limitation	Basis for Limitation (Note b)
Boron	mg/L	1.0	E, BP
Boron	lbs/day	60	E, BP
Chloride	mg/L	150	E, BP
Chloride	lbs/day	9,020	E, BP
Chronic Toxicity (Note d)	Pass or Fail, % Effect (TST)	Pass or % Effect < 50%	TST
Fluoride	mg/L	1.6	E, BPJ
Fluoride	lbs/day	96.2	E, BPJ
Ammonia – N	mg/L	10.1	E, TMDL
Ammonia – N	lbs/day	607.3	E, TMDL
Nitrate – N	mg/L	8	E, TMDL
Nitrate – N	lbs/day	481	E, TMDL
Nitrite – N	mg/L	1	E, TMDL
Nitrite – N	lbs/day	60	E, TMDL
Nitrate + Nitrite - N	mg/L	8	E, BP
Nitrate + Nitrite - N	lbs/day	481	E, BP
Perchlorate	mg/L	6.0	E, BPJ, MCL
Perchlorate	lbs/day	0.36	E, BPJ, MCL
Sulfate	mg/L	300	E, BP
Sulfate	lbs/day	18,039	E, BP
Temperature	degrees °F	80 (Note e)	E, BP
Total Dissolved Solids	lbs/day	950	E, BP
Total Dissolved Solids	mg/L	57,124	E, BP
Radioactivity – Gross Alpha	pCi/L	15	E, BP, BPJ
Radioactivity – Gross Beta	pCi/L	50	E, BP, BPJ
Combined Radium-226 & Radium-228	pCi/L	5.0	E, BP, BPJ
Tritium	pCi/L	20,000	E, BP, BPJ

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-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 and Order R4-2015-0033. 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, 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.

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

Effluent monitoring is required for pollutants expected to be present in the discharge as prescribed in Table E-2 in the MRP (Attachment E). 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 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. This Order requires routine monitoring for chronic toxicity which is a more stringent measure of the aggregate toxic properties of the discharge than acute toxicity. 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 and RSW-002. 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. Priority pollutant monitoring is required for both 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.

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 has developed tentative WDRs and has 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 intent 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 had access to the agenda and any changes in dates and locations through the Los Angeles Water Board's website at <http://www.waterboards.ca.gov/losangeles>.

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, the written comments were due at the Los Angeles Water Board office by 5:00 p.m. on January 11, 2022.

8.3. Public Hearing

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

Date: February 10, 2022
Time: 9:00 AM
Location: TBD

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; and (b) to identify and implement site- specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities 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

<p>PLANNING AND ORGANIZATION</p> <p>Form Pollution Prevention Team Review other plans</p>
<p>ASSESSMENT PHASE</p> <p>Develop a site map Identify potential pollutant sources Inventory of materials and chemicals List significant spills and leaks Identify non-stormwater discharges Assess pollutant risks</p>
<p>BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE</p> <p>Non-structural BMPs Structural BMPs Select activity and site-specific BMPs</p>
<p>IMPLEMENTATION PHASE</p> <p>Train employees Implement BMPs Conduct recordkeeping and reporting</p>
<p>EVALUATION / MONITORING</p> <p>Conduct annual site evaluation Review monitoring information Evaluate BMPs Review and revise SWPPP</p>

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 materials¹⁰ 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.

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

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in 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.